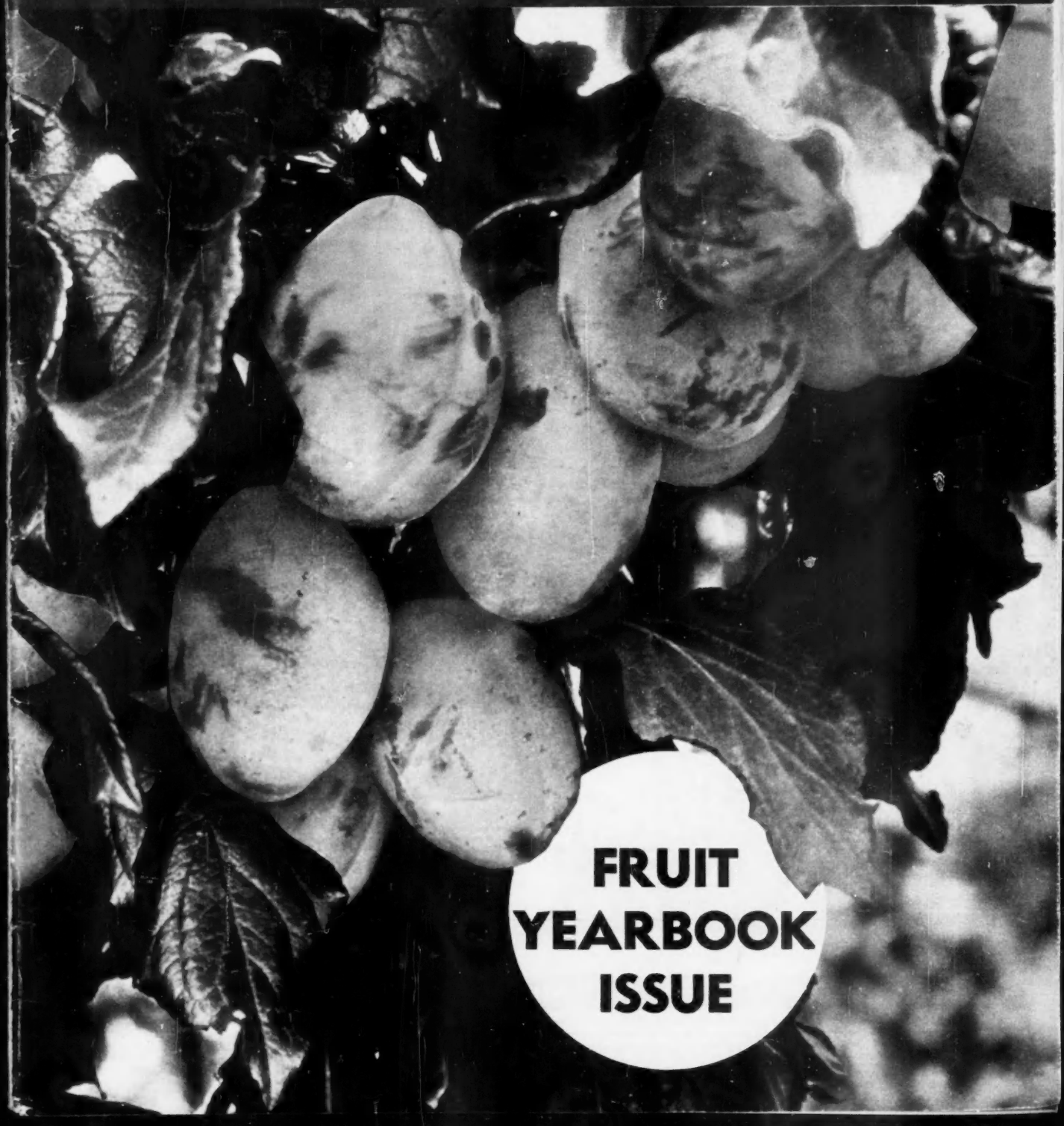
WESTERN EDITION
JANUARY 1953

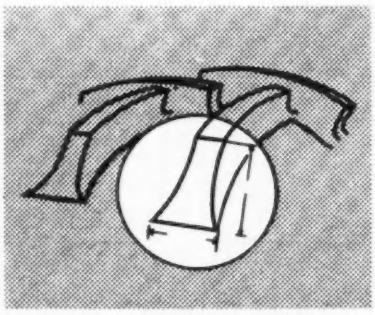
American Fruit Grower



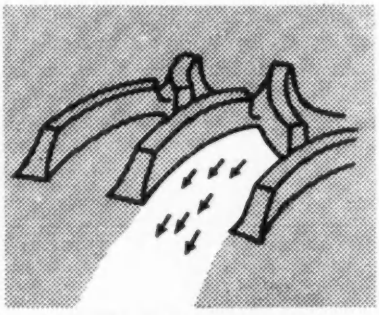
FRUIT YEARBOOK ISSUE

Here Are the IMPORTANT POINTS to look for Before You Buy Tractor Tires

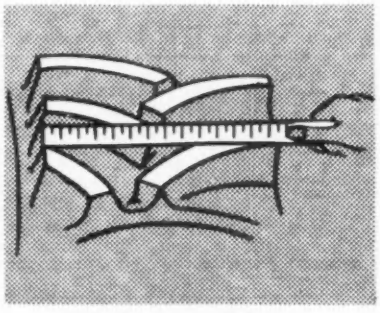
CURVED AND TAPERED BARS
For a sharper bite and deeper penetration . . . greater drawbar pull.



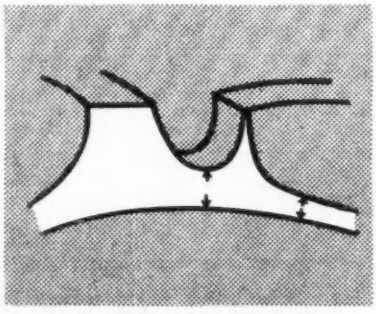
BIGGER, STRONGER SHOULDERS
For greater tread contact, for a bigger bite and longer and more even tread wear.



FLARED TREAD OPENINGS
To prevent soil jamming and to permit easy soil release.



WIDE FLAT TREAD
For more biting edge, full-width traction and longer life.



BUTTRESSED POWER LINKS
Prevent excessive bar wiping; eliminate bar-end body punching.

DUAL SHOCK PROTECTORS
Extra cap plies to absorb even the most severe impacts.

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Firestone
CHAMPION HEAVY DUTY TRUCK TIRE
A new, rugged, low-priced tire that is built for all-around farm truck service.

ALWAYS BUY TIRES BUILT BY FIRESTONE, ORIGINATOR OF THE FIRST PRACTICAL PNEUMATIC TRACTOR TIRE

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KEEP SCAB OUT WITH DU PONT "FERMATE"

TOUGH ON DISEASE. "Fermate" fungicide gives foliage and fruit of apples and pears sure protection against scab. It also controls cedar-apple rust, black rot, sooty blotch and bitter rot.

EASY ON BLOSSOMS, LEAVES AND FRUIT. "Fermate" is safe to use through the scab season, provides disease control without burning or stunting even tender young growth. Safe in hot weather, too.

BETTER YIELD AND QUALITY. Leaf growth reaches full vigor when protected with "Fermate." Helps make higher yields of larger fruit with better finish.

COMPATIBLE WITH OTHER CHEMICALS. You can use "Fermate" safely with most pest-control products. For exceptional wetting and covering power, use Du Pont Spreader Sticker in the spray mixture.

IDEAL FOR MANY FRUITS. "Fermate" also controls grape black rot, brown rot of stone fruits, peach scab, cherry leaf spot, cranberry fruit rots and raspberry anthracnose and leaf spot.

See your dealer now *for Du Pont "Fermate" fungicide and other proved Du Pont pest-control products. Ask him for free booklets, or write to Du Pont, Grasselli Chemicals Department, Wilmington, Delaware.*

DU PONT CHEMICALS FOR THE FARM INCLUDE:

Fungicides: PARZATE* (Liquid and Dry), FERMATE,* ZERLATE,* Copper-A (Fixed Copper), SULFORON* and SULFORON*-X Wettable Sulfurs . . . Insecticides: DEENATE* DDT, MARLATE* Methoxychlor, LEXONE* Benzene Hexachloride, KRENITE* Dinitro Spray, EPN 300 Insecticide, Calcium Arsenate, Lead Arsenate . . . Weed and Brush Killers: AMMATE,* 2,4-D, TCA and 2,4,5-T . . . Also, Du Pont Cotton Dusts, Du Pont Spreader Sticker, PARMONE* Fruit Drop Inhibitor, and many others.

*REG. U. S. PAT. OFF.

On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

DU PONT

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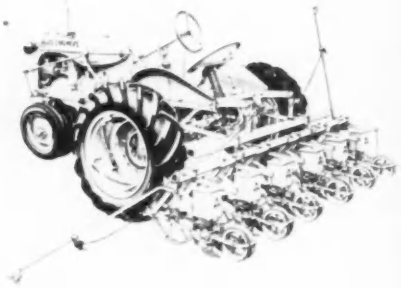
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

Four or six-row CA tool bar cultivator. Divided tool bars, 100 or 130-inch total width, permit any desired spacing of shanks. Wide variety of ground tools quickly attached by one universal clamp.



Four or six-row CA vegetable seeder — row spacings up to 24 inches. Each unit has independent ground drive. Automatic shut-off when hydraulically lifted.

Two-row CA cultivator with a new kind of open vision and clearance. For 28 to 44-inch row spacings. Independent depth adjustment. Any desired position of tools permitted by tubular gang frame members.

Only one hitchpoint to line up on this CA 7-foot mounted disc. Free to follow where led — controlled penetration. BAL-PAK anti-friction ball bearings never need greasing!

Note: Low clearance muffler available if desired.

put new vitality into your *high-pay crop*

Your high-pay crop gets a new kind of attention when the CA Tractor starts to work!

Rear wheels are power-shifted, matching the rows and the tool width to the inch — quickly, easily, safely. More *income* hours are available!

Automatic Traction Booster assures a deep, ample seedbed behind plow or disc — in the toughest field or grove.

Hydraulic lift and depth control are quick and sure. CA planters and cultivators offer a new, greater range of adjustment and performance.

There's new respect for tractor power and what it can do, among fruit and berry growers, truck gardeners, nurserymen and flower growers. A demonstration of the Allis-Chalmers CA Tractor will show you why.

CA 7-foot mounted field cultivator — a rugged tool with low line of draft for deep penetration at fast tractor speeds. Ideal for renovation in orchards and fields. Five-tooth coil shank cultivator also available.

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

BAL-PAK is an Allis-Chalmers trademark

In the shadow of Mount Hood, along the Old Oregon Trail, V. F. Carson grows raspberries worth a thousand dollars an acre. It means a lot to him to have a harrow that lifts clear, yet floats free, that is quickly mounted and easily controlled. Here his Case "VAO" Tractor is shown with the Case "LD-46" Offset Harrow. The Case Eagle Hitch gives him one-minute hook-up to a wide choice of rear-mounted, hydraulically-controlled implements.

On the Old Oregon Trail or Along Lake Michigan

IT'S THE SAME STORY OF SAVINGS WITH CASE TRACTORS

From all parts of the country comes the same story of savings with Case Tractors. You have choice of three sizes in orchard and grove tractors. Besides the low-cost 2-plow "VAO," there is the bigger 2-plow "SO." The fast 3-plow Model "DO" can be ordered factory-equipped for LPG fuel, gasoline, or low-cost tractor fuels. With any of these tractors you get fuel economy, a moderate-speed engine with lugging power to pull right through tough spots, replaceable cylinder sleeves, complete dust sealing throughout. All this helps you save money in repair bills, get extra years of use from your investment. There is a wide selection of Case implements—harrows, tillers, plows, mowers. Start now to save money—and time, too. See your Case dealer.

For his orchard near Lake Michigan, Julius Marshall needs a tractor built low and close to the ground. He needs a tractor that is narrow and has a short wheel base, so he can turn short among his trees. He also needs a tractor with plenty of eager power. The Case "DO" Tractor meets all these needs besides giving him low operating costs per acre and low upkeep year after year. He is shown in his orchard at Traverse City, Michigan, pulling a Case "R" Disk Harrow with "DO" Tractor.

SEND FOR SPECIAL FOLDER

Case builds 25 great tractors, a full line of farm machines. For catalog or folders, mark here or write in margin any that interest you. J. I. Case Co., Dept. A-13, Racine, Wis.

- ☐ 2-Plow "VAO" Tractor
- ☐ Larger 2-Plow "SO"
- ☐ 3-Plow "DO" Tractor
- ☐ Mounted Harrows
- ☐ "R" Disk Harrows
- ☐ Springtooth Harrows

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On every count you're dollars ahead with a John Deere model "AO"

Check the factors that increase orchard profits—lower operating costs . . . time and labor savings . . . damage-free work . . . rock bottom maintenance expense—on every count you'll be on the "plus" side . . . be dollars ahead . . . with the John Deere "AO" Orchard Tractor.

The outstanding "AO" is available with your choice of gasoline or all-fuel engine. And whichever you choose, you'll get maximum efficiency and economy from every fuel dollar, for these rugged, two-cylinder engines —with heavier rotating parts and *exclusive* cyclonic-fuel-intake—squeeze the maximum amount of power from every drop of fuel used. Six forward speeds and smooth, positive hydraulic Powr-Trol mean more work . . . easier work every hour, every day. The multi-speed transmission provides the right speed for every job and Powr-Trol eliminates slow-downs or stops . . . gives you easy, accurate, from-the-seat control of drawn tools.

The low, shielded, streamlined design of the "AO" lets you work in tight quarters . . . under low-hanging branches with minimum damage to fruit or foliage and the ventilated cowl gives full operator protection yet allows a full view ahead. Exclusive John Deere *two-cylinder* design with its fewer, stronger, heavier parts offers *unequalled* dependability . . . rock-bottom maintenance economy . . . longer tractor life.

See your John Deere dealer and learn how the greater economy . . . the faster working speeds . . . the streamlined styling of the "AO" can mean the greatest operating economy you've ever known.

JOHN DEERE

MOLINE ILLINOIS

Important Facts You Should Know About

ARSENATE OF LEAD AS A SPRAY FOR APPLES

ARSENATE OF LEAD is the one insecticide that has proved its great value as a spray for apples over many years of use. Let's look at the recommendations of the experts in the field of insect control as found in bulletins issued during 1952 by many state agricultural experiment stations EAST OF THE ROCKIES.

Just what are these recommendations? Arsenate of lead is recommended for the control of curculio applied in the petal-fall, first-cover and second-cover applications.

Arsenate of lead is recommended for the control of codling moth in the calyx and first-cover sprays and in the later cover sprays, alone or in combination with small amounts of DDT.

Arsenate of lead is recommended as a spray against apple maggot in the third, fourth, and fifth cover sprays.

Death to Curculio!

Why is arsenate of lead recommended for the control of curculio? The answer is that arsenate of lead is the most effective insecticide to use against curculio. A heavy coating of arsenate of lead gives longer and better protection than any synthetic organic insecticide. Arsenate of lead actually poisons curculio as they feed prior to the time they lay eggs in the young apples. Arsenate of lead does not lose its effectiveness due to decomposition, but remains active as a poison as long as it remains on fruit and foliage.

Control First-Brood Codling Moth

Why is arsenate of lead recommended for the control of first-brood codling moth? The answer is that arsenate of lead CONTROLS first-brood codling moth. In certain applications it is recommended that small amounts of DDT be added to arsenate of lead if codling moth infestation becomes very serious.

. . . and the Apple Maggot

Why is arsenate of lead recommended as a spray for apple maggot? Arsenate of lead is still the best insecticide to use to control apple maggot. In Michigan and Indiana, for example, damage from apple maggot is on the increase because of a failure to use arsenate of lead.

What other advantages does arsenate of lead offer when used as a spray on apples?

Advantages of the "Lead Schedule"

When combined with wettable sulfurs, the latter adhere longer to fruit and foliage, thereby giving better protection against apple scab and sooty blotch, both of which have caused extensive damage during recent years.

Apple orchards sprayed with arsenate of lead, for the control of first-brood codling moth with a minimum of DDT, are freer from mites than those on which DDT has been used exclusively. It is generally believed that too frequent spraying with DDT promotes mites.

Many eastern apple growers who have used substitutes for arsenate of lead with unsatisfactory results are going back to the so-called "lead schedule" for spraying apples. They cannot afford to do otherwise because they know from experience that arsenate of lead is the most dependable insecticide they can use to control curculio, first-brood codling moth and apple maggot, and that it does not induce mite infestations.

You can obtain your spray material requirements from the Sherwin-Williams Insecticide Dealer in your locality, or write to one of the addresses below.

Sherwin-Williams Spray Materials

S-W ARSENATE OF LEAD
S-W PARATHION *(15% wettable)*
S-W BASI-COP *(Tri-basic copper sulfate)*
S-W 50-50 DDT *(Wettable)*
S-W DIMITE *(Miticide)*
S-W FLO-MULSION *(Dormant oil spray)*
S-W KARBAM BLACK *(Ferbam)*
S-W KARBAM WHITE *(Ziram)*
S-W MULSOID SULFUR *(Microfine sulfur)*
S-W SULFIX SULFUR *(Microfine sulfur)*
S-W SAFE-N-LEAD *(Zinc safener)*
S-W SPRALASTIC *(Spreader and sticker)*
S-W SPRED-RITE *(Spreader and sticker)*
S-W SUMMER MULSION *(Summer oil spray)*
S-W STOP DROP *(Naphthalene acetic acid)*

THE SHERWIN-WILLIAMS CO.

INSECTICIDE-FUNGICIDE DIVISION

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NEW *Super Sprayer*

BES-SPRAY

MODEL 320 • 340

IT'S A POWERHOUSE!

1 or 2 row Spraying

JUST THINK—an output of 25,000 cubic feet per minute . . . a 30-inch axial blower that sets up a virtual typhoon in orchard rows . . . agitation that thoroughly covers every leaf, clear to the tops of tallest trees.

ONE MAN DOES THE WHOLE JOB!

choose either—QUADRUPLEX HIGH PRESSURE PUMP for fine atomization

or—CENTRIFUGAL PUMP for drenching mist, up to 50 gallons per minute.

300 GALLON TANK!

Put this powerhouse to work and deliver more "extra fancies" in the fall. Most likely, your new super BES•SPRAY will pay for itself in a single season.

Also available—

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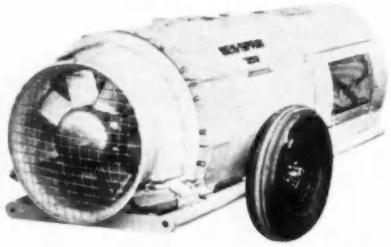

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☐ BES•SPRAY pest control equipment

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JANUARY 1953

VOL. 73 No. 1

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See why so many GROWERS PREFER

253

EFFICIENT · ECONOMICAL COVER SPRAY

BLACK LEAF 253 has won wide acclaim by leading fruit growers. Forward-looking orchardists who have used this amazing, new, multi-purpose summer cover spray quickly discovered that it topped other more complicated and more expensive cover spray programs in TOTAL CLEAN FRUIT. This year, Black Leaf 253 is available in larger quantities at lower prices. Ask the man who sells you your spray materials.

BLACK LEAF 253 provides simple, easy, one-product control of codling moth, red-banded leafroller, leafhoppers, European red mite, red spider mite, San Jose scale, Forbes scale, and similar pests.

BLACK LEAF 253 is Black Leaf *Tobacco Base* "impregnated" with 25% of DDT and 3% of Parathion by an exclusive process.

DUSTLESS. Black Leaf 253 is scientifically treated to eliminate dust. Just dump it in the water as the spray tank is refilling.

COMPATIBLE. Mixes with all the fungicides and other materials recommended in combination with DDT and Parathion.

LESS RESIDUE. Black Leaf 253 provides excellent control with minimum chemical residue and essentially no visible residue.

STREAMLINE your cover spray program with all-summer use of economical, easy-to-use, highly-effective Black Leaf 253. Full directions on each package. *Write for information.*

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RICHMOND 8, VIRGINIA • Sales Offices in 22 Cities
Dependable Pest Control Products Since 1885

Other Famous Black Leaf® Spray Materials

Black Leaf 40® is the famous volatile nicotine insecticide which provides fast, efficient protection against aphids, leafhoppers, apple redbug, most thrips, four-lined leaf bug, pear psylla, codling moth, bud moth, pear midge, leaf-miners, mealy bugs, pecan phylloxera, pecan nut casebearer, and similar insects. Black Leaf 40 kills these pests two ways—by contact and by fumes—quickly and economically, and insects controlled by this method do not develop resistant strains.

Black Leaf 40 does not destroy beneficial insects such as lady bird beetles and their larvae, aphid lion, syrphid fly, chalcid wasp, orius bug, epyris wasp, braconid wasp, various egg parasites, and numerous other friendly insects that attack your insect enemies. Black Leaf 40 also spares bees—the pollenizers.

Black Leaf 40 is non-caustic and does not injure foliage or fruit. It leaves no objectionable residue . . . necessitates no washing of fruits. Black Leaf 40 is compatible with all standard spray materials, ideally suited for use in combination sprays.

Black Leaf Parathion Wettable Powder formulations are *dustless*. Available as 15% or 25% Parathion, these desirable formulations are designed to avoid the problem of "dustiness" when the wettable powder is being handled. Permits the addition of the Parathion Wettable Powder directly to the spray tank while refilling.

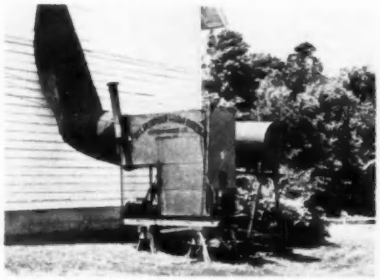
Black Leaf Parathion Wettable Powders are effective against European red mite, two-spotted mite, Pacific mite, brown almond mite, various species of aphids, and certain other insects. Parathion, while extremely effective as an insecticide, is also highly poisonous to human beings if inhaled, absorbed through the skin, or swallowed. Danger may be minimized if most stringent precautions are rigidly observed. Follow directions on labels, and consult local agricultural authorities for information on the proper use of Parathion.

Black Leaf 50% DDT Wettable Powder is well known and widely used to control codling moth, oriental fruit moth, leafhoppers, citrus thrips, and similar insects. Do not apply to fruit within 30 days of harvest. Follow directions on package.

Black Leaf TEPP 40 contains 40% tetraethyl pyrophosphate and 60% other organic phosphates. Used at the rate of one-fourth to one-third pint in 100 gallons of water, Black Leaf TEPP 40 controls European red mite, two-spotted mite, Pacific mite, clover mite, also leafhoppers (nymphs) and aphids infesting apples, pears, peaches and similar crops.

Black Leaf TEPP 40 should be applied promptly after preparation of spray mixture. Follow directions on package and consult local agricultural authorities for information on timing of applications, etc.

This tractor and all of the other power units on the Rothenberger farms are equipped with Champion Spark Plugs.



The drier, while used principally for shelled corn, also helps get the wheat and oats in on time in rainy weather.

This hog barn is one of the well-kept buildings in wooded settings that make the Rothenberger place a real beauty spot.

"Around Here Almost Everybody Uses Champions—*We've sure had good luck with them!*"

—Says Mr. Wm. Rothenberger who, with his brother and their father, operates the Rothenberger farms near Frankfort, Indiana.

"Scientific farming at its best" might well be the motto of the Rothenberger farms a few miles from Frankfort, Indiana. For example, one field has had five crops of corn without rotation and has chalked up a higher yield each year. This, of course, is the result of a highly intensive fertilization program.

The Rothenberger 320 acres are principally corn, small grain and pasture. They feed around 100 head of cattle and some 1100 hogs every year. Scientific protein feeding, balanced vitamin rations and newly developed antibiotics have doubled the rate of gain for their stock over regular silage feeding.

Bill Rothenberger, honor graduate of Purdue University, says: "Agriculture has progressed more in the last ten years than in the previous fifty. The tenfold step-up in the use of fertilizers has brought crop protein levels up as well as greatly increasing the crop yield per acre. All this has meant heavier investment, greater operating expense and more mechanical farm equipment—but it pays off!

"With more tractors, trucks and other engines, spark plugs have become a mighty important item on any farm. Talk to the farmers in this section and I think you'll find that around here almost everybody uses CHAMPIONS. We've sure had good luck with them! They go a lot more hours and give us top performance. Also, the Champion dealers must carry more complete stocks. We find it's easier to get Champions in any heat range we want."

CHAMPION SPARK PLUG COMPANY, TOLEDO 1, OHIO

The Wm. Rothenberger home is a model of attractiveness and convenience. The many trees give the farm residences and many of the buildings excellent protection from sun and from winter winds.

Cross breeding using pure bred boars plus scientific feeding has resulted in an outstanding commercial swine herd.

Dependable

CHAMPION

Spark Plugs

are Worth Asking for BY NAME

THOUGHTS IN THE ORCHARD

One of our great horticulturists remarks about the unusual human qualities with which orchardists are endowed . . .

"The efflux of the soul comes from within through embower'd gates, ever provoking questions,

Why are there men and women that while they are nigh me the sunlight expands my blood?

Why when they leave me do my pennants of joy sink flat and lank?

Why are there trees I never walk under but large and melodious thoughts descend upon me?

(I think they hang there winter and summer on those trees and always drop fruit as I pass);"

THESE lines from "Song of the Open Road" by our great poet of nature and human love, Walt Whitman, seem to me the best I have found concerning trees. And, in agreement with them, I believe many people who walk among sturdy trees often find wholesome thoughts and weighty questions taking possession of their minds. I wonder if some of the good qualities of experienced fruit growers may not be due to such influences from their trees? Throughout nearly 50 years of study in orchards of three different states I have heard people speak of fruit growers as especially upright and sturdy-minded men, have had students of other crops congratulate me because my work was with fruit growers.

The strong character usually observed in fruit growers is, of course, due largely to the fact that their business is too hazardous and exacting for weaker, less dependable men to remain in it long. Many growers I have known, however, had this rugged dependableness that the business exacts but over it a kindliness and serene thoughtfulness that seemed to me to be due to association with their trees. In Denmark I was told that a considerable number of men from the horticultural schools find employment in the police forces and that people come to like them because of their composure. May not the perseverance of Thomas Jefferson under the calumny that harassed him in his support of ways of life we now cherish have been due to the fact that as frequently as possible he went back to his home and pruned and watched his trees and received comfort and encouragement from them?

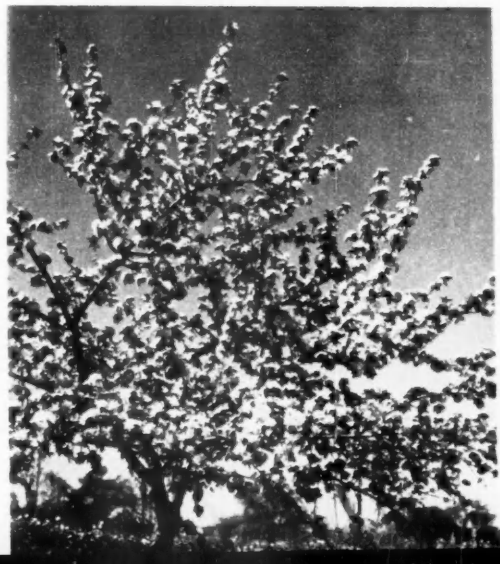
I believe many a fruit grower, walking under his great apple trees, may find worries about difficult weather, rising costs, and unsatisfactory prices fading from his mind, and enduring thoughts replacing them. He thinks of argument, sometimes excited, he used to hear at meetings of his society over practices that have now been discarded or adopted generally because of the accumulated evidence that precludes argument.

In his society, he reflects, the practice of arguing has been largely replaced by careful, patient inquiry. New practices have come in that bring doubt enough, could be argued about, practices such as spraying with surprising new materials to reduce dropping of fruit before all the crop on a tree is ready for harvest or before the pickers get to it. It may be putting too much short-lived fruit on the market. And chemical thinning shows considerable uncertainties.

But scientists, he has observed, now give less advice, especially less exhortation, and more results of cautious trials and records of experience. By the cautious trials of growers and careful studies of scientists, reported without bias or excessive enthusiasm, he sees practices eventually brought into harmony with the truth.

Then he thinks, with aversion, of the contrast between such honest progress and political practices, the confusing argument and evil lies that are resorted to. Is there evidence of any improvement since Thomas Jefferson's time? He thinks there may be and wonders how long it will be before knowledge in political fields, also, will be complete enough to preclude argument and make lies ineffective.

Then he looks down the rows of sturdy trunks supporting great, arched, silvery branches and thinks he sees a time when all important decisions will be made by patient weighing of the evidence. Human love guided by an all-pervading, kindly, but inescapable light of carefully winnowed truth. And because of such thoughts that descend upon him among his trees, the efflux of his soul is from a better faith.



W. H. Chandler

The 1952 Apple Season—Exciting, Depressing, Reassuring

The 1952 apple growing season was hectic and many times disheartening to the apple grower in nearly every producing district. On the other hand, to mid-November, 1952, the market situation was the reverse—hectic but heartening. Demand and movement have been good and returns to growers are more favorable than for several years. Considering all factors, it is reasonable at present to assume that quality fruit will move, and at a satisfactory price level.

Weather—The Determining Factor

After three years of above-average apple crops "Old Man Weather" raised havoc in 1952.

In the East and Central states unfavorable pollinating weather, scab, hail, fire blight, heat, drought, sunscald, and cracking of susceptible varieties took their toll. Orchards not receiving optimum care carried no fruit or only a small amount of fruit of poor quality. The net result was a reduction in the crop in these states of about 25 to 30 million bushels below the 1951 crop with most sections indicating a decrease from last year of between 40 and 50 per cent. The exception of this situation was the Appalachian area (not including Pennsylvania) where production approached the 1951 crop.

In the West pollinating conditions were only fair. Severe frosts in Washington during the early portion of the bloom caused material damage, notably on Delicious, Red Delicious, and Jonathan. Growing conditions were excellent throughout the summer. However, in mid-September a two-week heat wave hit Washington and the color of Delicious was impaired materially. Harvest was delayed to obtain color. The hot weather continued and color did not improve. The fruit matured and it was necessary to harvest Delicious. The heat helped to size the Winesap fruit, and cooler weather later improved the color. Other western states were not as adversely affected by the heat.

PRODUCTION—Million Bushels

Average: 1941-50	110	1951	111
1950	124	1952*	93

Lessons from 1951

As can be seen by the accompanying chart, the amount of fruit that may be consumed on the fresh domestic market this season is only a few million bushels less than that consumed in 1951-52.

With this in mind it was imperative that the apple industry, in viewing merchandising plans, recall three lessons vividly emphasized in 1951:

1) That poor fruit rarely returns a profit regardless of supply, and may be difficult to move at any price,

ESTIMATED APPARENT FRESH DOMESTIC PER CAPITA CONSUMPTION OF APPLES BEFORE AND AFTER DECEMBER 1**

	Pounds Consumed Before Dec. 1	Pounds Consumed After Dec. 1	Population (In Thousands)
1911-1915	15.3	9.1	1910— 91,972
1916-1920	15.9	9.2	
1921-1925	15.3	12.8	1920— 105,711
1926-1930	17.2	11.1	
1931-1935	12.7	12.1	1930— 122,775
1936	10.2	10.5	127,220
1937	16.7	14.4	128,475
1938	9.9	11.0	129,455
1939	13.7	12.5	130,406
1940	10.8	13.2	131,456
1936-1940	12.3	12.3	
1941	10.7	12.2	132,638
1942	10.1	13.2	133,953
1943	8.2	8.6	135,646
1944	10.5	13.1	137,368
1945	7.8	7.1	138,923
1941-1945	9.5	10.8	
1946	10.1	10.9	141,000
1947	9.5	13.1	144,000
1948	10.2	8.5	147,400
1949	10.1	11.3	150,000
1950	8.9	12.2	152,000
1946-1950	9.8	11.2	
1951	10.0	9.3	154,000
1952 (estimated possibilities)	8.7	9.3	156,000

**Tonnage exported, processed and not marketed have been deducted. Imports are not included

*Preliminary

Apples

especially from storage. (In 1951 national storage holdings of apples were very low and yet poor quality fruit went begging at disaster prices.)

2) That certain areas and certain varieties through the years have built up a "prestige value" and when that item is in short supply, the price may be relatively high even though the national crop may be large. (In 1951 Delicious were in short supply nationally and returns for quality packs of this variety from Washington state and other areas were good, while other varieties in the East and Central states, such as McIntosh, Cortland, etc., in relatively long supply, were in many instances selling below cost of production.)

3) That prices paid by processors, especially in the East, may help to establish a minimum or maximum market level for the fresh fruit market from September through November and later. (In September, 1951, canner inventories of processed apple products were at high levels and the prices offered by processors for the raw product were the lowest in several years.) The fresh market reflected the influences of this fact through December, even though the national holdings of apples on November 1 and December 1 were below average.

The Processing Situation

The processing situation in 1952 was quite the reverse of 1951. Starting inventories of canned sauce were low and the price of the finished product was creeping up. Stocks of slices were manageable although not in as favorable position as sauce. In short, the processor was in position to use as many apples as in 1951 if not more, and presumably at better prices. (See chart.)

By August it was apparent that the 1952 apple crop would be considerably below the 1951 crop. Rhode Island Greening, a favorite of the western New York processors, was very light. In the Appalachian area (the heaviest processing area in the country) the picture was somewhat brighter because of a fairly good York Imperial crop (the Appalachia favorite). However, varieties such as Jonathan, Stayman, Grimes, and Rome were lighter than in 1951.

Furthermore, in late August and early September fall varieties were moving well to the fresh market at satisfactory price levels (and at price levels that increased) and they continued to do so. The processor must have volume to keep his per case costs as low as possible. To obtain this volume in 1952 it was necessary to keep pace with the returns reflected by the fresh market.

The fresh market remained active and firm through October, 1952, and prices offered by processors increased as the season progressed. These prices were substantially higher than those paid in 1951. On a national basis, it appeared in mid-November that the processor would not receive as many apples as desired nor as many as last year. In the western states the amount processed should exceed the 1951 tonnage.

An interesting and promising situation has developed to date, i.e., "Can

(*Continued on page* 40)

ESTIMATED UTILIZATION AND MOVEMENT OF APPLE CROPS FOR 1948, 1950, 1951, 1947-51 AVERAGE, AND 1952 POSSIBILITIES***

TOTAL UTILIZATION

HOW UTILIZED	1947-51 Average (1000 bu.)	% of total	1948 (1000 bu.)	% of total	1950 (1000 bu.)	% of total	1951 (1000 bu.)	% of total	1952 POSSIBILITIES? (1000 bu.)	% of total
Processed	33,455	29.4	23,032	25.5	44,500	34.9	32,900	28.4	29,000	30.0
Not Marketed (Farm Use, Waste, etc.)	9,000	7.9	4,500	5.0	8,500	6.7	13,500	11.6	4,500	4.6
Exports	2,709	2.4	1,418	1.6	2,914	2.4	3,400	2.9	1,100	1.1
Assumed Fresh Domestic	68,593	60.3	61,432	67.9	71,483	56.0	66,307	57.1	62,200	64.3
TOTAL CROP	113,757	100.0	90,382	100.0	127,397	100.0	116,107	100.0	96,800	100.0
IMPORTS	1,900		2,300		2,333		1,100			
ESTIMATED MOVEMENT PRIOR TO DECEMBER 1										
Processed	29,711		21,642		36,370		30,900		27,500	
Exports	865		453		717		1,300		300	
Not Marketed by Dec. 1 (Farm Use, Waste, etc.)**	8,500		4,500		6,000		13,500		4,500	
Commercial Fresh Domestic Use July 1 to Dec. 1	32,403		33,553		30,210		34,330		30,000	
Total Moved by Dec. 1	71,479		60,148		73,297		80,030		62,300	
ESTIMATED MOVEMENT AFTER DECEMBER 1										
In Storage Dec. 1	42,278		30,234		54,100		36,074		34,500	
Processed from Storage	3,744		1,390		8,130		2,000		1,500	
Waste after Dec. 1**	500		**		2,500**		**			
Exports	1,844		965		2,197		2,100		800	
Fresh Domestic Use After Dec. 1	36,190		27,879		41,273		31,974		32,200	

*Preliminary

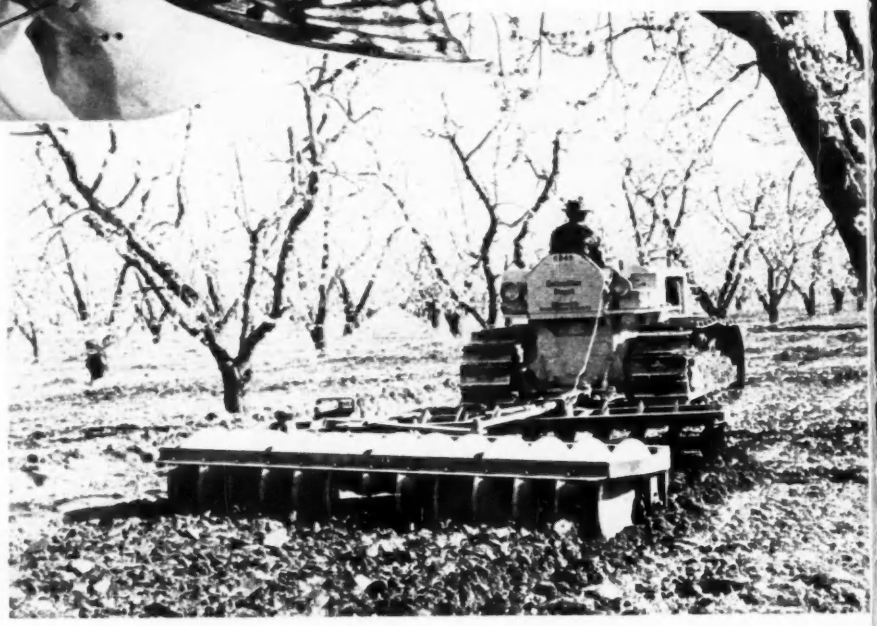
**Normally assumed to have moved prior to Dec. 1 in most years; this is not always the case.

***International Apple Association data.

dry weather in many eastern states. In addition to the maturity date being thrown out of its normal sequence, size and quality of the fruit were materially affected. These factors brought on a sharp decline in the price level about the middle of the season from which the market never did fully recover.

Quality Packs Popular

The peach crop went to market in various types of containers such as the box, the two-thirds bushel, the half-bushel, and the individual cell. Western volume was shipped into midwestern and eastern markets heavily again this year, and the select pack of the West seems to be gaining headway in many retail markets. There was not the usual interest in canning peaches.



Commercial Peach Acreage Reduced Considerably

In the spring months of 1952 there seemed to be a peach crop in sight in nearly every one of the producing areas. The distribution pattern, therefore, was quite different from the previous season when the crop was generally light in the Mississippi Valley.

In some states the bud killing had taken its usual toll but there was not a complete black-out in any one of the states as there was during the previous season. The total yield, according to the USDA crop report for November 1, was 62,622,000, which included some 19 million bushels for the California clingstone crop. This was somewhat lighter than 1951.

PRODUCTION—Million Bushels

Average: 1941-50	68	1951	64
1950	51	1952*	63

One thing in evidence in many of the eastern states was the great reduction in commercial bearing acreage as a result of the winter injury two years ago. Before the 1952 season ended this was an important determining factor in the total yield.

A pronounced reduction in acreage has taken place in nearly all of the states east of the Mississippi River, and some areas, such as Delaware, the eastern shore of Maryland, Tennessee, the Centralia section of Illinois, Kentucky, and parts of Missouri and Arkansas show a heavy loss of orchards.

The heavy decline in commercial acreage in the East has almost been made up by plantings in the West; however, it would seem, in view of the heavy drop-off in acreage in the East, that now would be a good time for new plantings to be made by the best growers in the better locations.

Preliminary

Crop Movement Disrupted

The 1952 crop showed some interesting variations. Normally, the Georgia crop is pretty well out of the way by the time South Carolina and North Carolina production begins to appear on the market. In 1952, however, peaches from Georgia, the Carolinas, California, Arkansas, and Alabama were on the market at about the same time. The movement of early varieties from California closely followed the peach movement from the southern states.

One of the most troublesome features of the 1952 season was the hot,

Cooling of peaches destined for distant shipment has aroused considerable interest in eastern peach sections in the Stericooler and a number of these cooling units were tried out in 1952 for the first time. This approach to getting peaches to market in better condition promises to be an important factor in the future, especially in view of the fact that precooled loads can be shipped to distant markets by trucks, which in many instances are equipped with cooling machinery.

Interest in Varieties

Varieties continue to interest growers. In alerting the trade during the past season as to the oncoming crop, the National Peach Council

Peaches

presented a summary of the varieties in commercial production from each of the regions. This information was very acceptable to the trade because it enabled growers, distributors, and merchandisers to determine more accurately the timing of the crop on the market.

The peach deal is fast becoming something other than just Elberta. A survey of key men in the National Peach Council located in different peach areas shows that over 40 varieties are in commercial production. Thus, the peach season is being extended over a period of several months.

ALL METHODS OF SALE

Season Average Price Per Bushel Received by Grower

	1951	1952*		1951	1952*
N.H.	3.00	3.90	Ga.	2.30	3.15
Mass.	3.00	3.60	Fla.	2.50	2.60
R.I.	2.80	3.60	Ky.	2.60	2.30
Conn.	2.80	3.50	Tenn.	2.10	2.20
N.Y.	1.95	2.25	Ala.	2.50	2.45
N.J.	2.00	2.85	Miss.	3.10	2.90
Pa.	2.15	2.00	Ark.	2.65	2.50
Ohio	2.45	2.60	La.	3.40	3.30
Ind.	3.00	2.25	Okla.	2.20	2.60
Ill.	2.85	1.70	Tex.	2.65	3.30
Mich.	3.00	1.75	Idaho	2.45	1.60
Mo.	3.00	2.75	Colo.	3.85	2.30
Kans.	2.40	2.30	N. Mex.	2.50	2.00
Del.	1.90	2.40	Utah	1.90	1.70
Md.	1.90	2.20	Wash.	2.60	1.65
Va.	1.75	1.75	Ore.	3.50	2.55
W.Va.	1.95	1.90	Calif.	1.87	1.68
N.C.	1.85	2.60	Cling	1.86	1.51
S.C.	1.95	2.65	Free	1.89	1.96

This is especially noticeable in the Georgia production from which state peaches are shipped from the middle of May to the middle of August. South Carolina is extending its season in much the same fashion by planting earlier varieties. The spread of the California season has been noticeable for a number of years. Some of the new varieties, especially those with better color, are popular with the trade and whereas the Elberta was formerly asked for, the trade is now interested in the early varieties, too.

The retail outlet is becoming more sensitive to color. This trend undoubtedly will become more pronounced in the years ahead as some of the newer, better-colored varieties come into the picture.

Taking into consideration the renewed interest in varieties, packages, precooling, and better production methods, the quality of eastern peaches is expected to approach western standards for distant shipments. There is, however, a strong tendency in the East, especially in a year such as 1952 when the dry weather affected fruit size so materially, to put a quantity of the lower grade pack on the market. The effect of this low-grade fruit on the price level of the better grade of peaches is a matter that is being critically watched in producing areas.

Transportation figures from the different sections show that nearly all the states are distributing nationally. All of this is having its effect upon the general level of fruit in the retail outlet. The peach, which is in competition with at least a half dozen other fruits, must pass on its own merits. Whenever it is the best buy in the store, the peach will hold its own in competition with any of the other fruits.—*M. J. Dorsey, National Peach Council*

APRICOTS

Apricot Production Continues Downward

The California apricot crop in 1952 again showed a sharp decline from 1951 production and from the 10-year average. The estimate for 1952 was 155,000 tons compared with a final figure of 172,000 tons for 1951, and the 10-year average 1941-50 of 203,700 tons. The 20-year average of 216,000 tons is considerably higher than actual production of the last several years. New plantings of apricots in California have shown a slightly decreasing trend, and bearing acreage in 1952 of 43,800 acres is slightly down from the previous year.

Production in other states is relatively small, as shown by the accompanying chart.

The majority of the California crop is canned and dried. The pack of canned apricots for the past few years is shown below.

The California dried apricot tonnage for 1952 is estimated at approximately 8,200 tons compared with 7,354 tons in 1951 and 14,124 tons in 1950.

Fresh Shipments

Fresh shipments, although small, are an important factor in the apricot deal. Such shipments are limited to a few selected districts in California where long experience has demonstrated the fruit possesses fine shipping qualities.

Interstate shipments of fresh apricots in carlots the last few years are shown in the accompanying table.

PRODUCTION—Tons

	1950	1951	1952*
California	213,000	172,000	155,000
Washington	1,700	4,800	14,000
Utah	400	6,400	5,000

CANNED—Cases

California Pack of Canned Apricots (24 2½ cans to case)

1950	3,660,606
1951	4,537,908
1952	3,904,135

FRESH SHIPMENTS—Carlots

	1951	1952
California	538	494
Washington	90	573
Utah	299	135
Other	53	137

Source: USDA Market News Service

Fresh shipments from California as listed above do not include intrastate movement which is as great as or even greater than shown for interstate.

Royal (Blenheim) is the leading shipping variety, followed by Tilton.

(*Continued on page* 43)

Cherries

Sweet Cherry Production Fluctuates in Far West

Total sweet cherry production in the five far western states in 1952 was just about equal to the average for the past 15 years, but individual state tonnages varied in some instances.

California produced 10,000 tons more than its 15-year average and about doubled its tonnage over the previous year. The 1952 tonnage of 39,000 was the second largest (1949 was larger) in this 15-year period.

Washington, for the third year, was far below its 15-year average tonnage and in no wise approached its record yield of 39,000 tons in 1949. Oregon's tonnage was about equal to its 15-year average, producing better than it did in 1950 and 1951, however.

Idaho yielded more tons in 1952 than it ever did during the past 15 years, in fact, exceeded its average by about 80 per cent. The same holds true for Utah—except its increase was about 40 per cent.

Preliminary

PRODUCTION—Tons

Sweet Cherry Production in the Far Western States, 1938-1952

	Calif.	Wash.	Oregon	Idaho	Utah	Total
1938	30,000	19,000	18,100	2,200	2,800	73,000
1939	36,000	20,600	19,600	1,550	1,800	79,550
1940	11,000	23,000	20,300	1,850	3,100	59,250
1941	21,000	24,700	18,900	1,700	3,900	70,200
1942	33,000	25,900	18,400	1,750	2,200	81,250
1943	17,000	26,700	21,700	2,110	4,000	71,510
1944	27,000	21,200	18,100	2,640	3,300	72,240
1945	38,000	32,400	20,800	2,460	4,300	97,960
1946	34,000	32,200	31,000	3,520	3,900	104,620
1947	28,000	25,600	10,800	2,380	3,500	70,280
1948	23,500	21,500	18,500	3,430	3,900	70,830
1949	44,000	39,000	34,200	4,100	2,900	124,200
1950	31,000	16,500	17,400	1,250	440	66,590
1951	19,800	12,700	16,700	3,250	4,000	56,450
1952	39,000	15,200	19,800	4,720	4,500	80,220
15-yr. Average	28,820	23,795	20,286	2,593	3,236	78,535

Carlot Shipments

California, Idaho, and Utah were fairly well above the past 15-year average in shipments of fresh sweet cherries, with Utah showing a tremendous increase—more cars shipped in 1952 than during the past 15 years. Oregon and Washington were below their 15-year average, as they have been for the past three years.

SHIPMENTS—Carlot

Carlot Shipments of Sweet Cherries in Far Western States, 1938-1952

	Calif.	Idaho	Oregon	Utah	Wash.
1938	789	105	224	89	660
1939	392	58	266	98	987
1940	767	91	174	48	867
1941	549	52	247	103	1,188
1942	802	66	243	38	1,089
1943	506	99	319	114	1,027
1944	772	138	220	152	778
1945	925	93	275	248	1,212
1946	874	163	149	260	1,615
1947	819	92	60	237	949
1948	458	78	127	293	703
1949	801	161	308	217	1,526
1950	1,001	41	119	22	692
1951	532	132	104	312	422
1952	882	138	179	467	784
15-yr. Average	725	101	201	180	927

Prices Received

Only Washington and Utah showed a price level in 1952 above their 15-year average as concerns the average price received per ton. In no instance did average prices approach those received in 1951.

PRICES
SWEET CHERRIES—All Methods of Sale

Season Average Price Per Ton Received by Grower

	Dollars		Dollars
1941-1950	208.00	1951	295.00
1950	238.00	1952*	205.00

SWEET CHERRIES—Processing

	1950	1951	1952*
New York	146.00	176.00	140.00
Michigan	136.00	182.00	130.00
Washington	202.00	290.00	160.00
Oregon	241.00	258.00	144.00
California	213.00	318.00	178.00

PRICES—Per Ton

Average Price Received per Ton for Sweet Cherries in Far Western States 1938-1952

	Calif.	Wash.	Oregon	Idaho	Utah
1938	$ 84.20	$ 77.60	$ 56.00	$ 60.00	$ 70.00
1939	79.30	95.80	72.00	80.00	70.00
1940	141.00	115.00	98.00	90.00	80.00
1941	127.00	108.00	115.00	95.00	90.00
1942	148.00	146.00	127.00	135.00	130.00
1943	270.00	228.00	201.00	220.00	210.00
1944	290.00	278.00	262.00	250.00	296.00
1945	282.00	259.00	259.00	265.00	260.00
1946	304.00	269.00	263.00	245.00	250.00
1947	251.00	275.00	211.00	240.00	280.00
1948	326.00	253.00	258.00	216.00	260.00
1949	182.00	135.00	129.00	140.00	190.00
1950	272.00	220.00	252.00	295.00	282.00
1951	361.00	332.00	273.00	275.00	350.00
1952	170.00	225.00	163.00	170.00	218.00
15-yr. Ave.	219.17	201.09	182.60	185.07	202.40

Acreage Trends

Since 1937, when the peak was reached, bearing acreage in California

(*Continued on page 46*)

Pears

Unorthodox Pear Situation in California

You might call this a "goofy" pear year for the West Coast. The canning pear return was disappointingly low, size and quality were excellent, the pack was almost a record, and the fresh market took a surprising amount of fruit.

To digress for a minute. In California the price of clingstone peaches is arrived at very scientifically after considering pack and all economic factors involved. Clings sold for $65 a ton in 1952, and traditionally pear growers get $10 to $15 a ton more for their higher cost fruit than cling growers. But tradition got torpedoed in 1952 and Bartlett pear growers ended the season averaging between $45 and $50 a ton.

Rags to Riches and Vice Versa

This is a rags to riches business. In 1951 pear growers got $98.80 a ton. In some of the pear districts growers estimate it takes 15 to 18 tons to the acre at $50 a ton to break even.

California growers knew they had a big carryover, but they also thought they had taken steps to offset the pack of canned pears and canned fruit cocktail. This latter pack has jumped from 1,650,000 cases in 1935 to 4,180,000 cases in 1940, 6,112,000 cases in 1950, and 10,743,000 cases in 1951.

Growers tried to offset big supplies by sending to the canners only No. 1 fruit which is rigidly defined quality under the marketing agreement. They threw out most "limb rub" fruit, threw out crooked core fruit, and even assessed themselves $1.25 a ton for the promotion of the finished canned product.

PRICES—Per Ton

California Bartlett Pear Prices Per Ton Compared With California Clingstone Peach Prices Per Ton 1943-1952

Year	Bartlett Pears	Cling Peaches	Year	Bartlett Pears	Cling Peaches
1943	$ 64.00	$65.00	1948	$120.00	$63.30
1944	80.00	62.30	1949	31.00	40.00
1945	72.00	63.50	1950	72.00	60.00
1946	100.00	63.50	1951	98.80	77.40
1947	73.00	49.70	1952**	45.00	65.00
Ave.	$ 77.80	$60.80	Ave.	$ 73.00	$61.14

10-Year Average—Bartlett pears, $75.40; Cling peaches, $60.97.

Source of Data: 1943-51, inclusive, prices by California Livestock and Crop Reporting Service, State Department of Agriculture.

** 1952—Average prices; growers' preliminary estimate.

In spite of all these efforts at self-help, the canners paid only the above-mentioned price, and gloom was rampant.

Top Quality Fruit

Mother Nature did not co-operate with the efforts of the growers to limit the fruit to canners. She made practically all the pears in California No. 1 fruit, and the season ended up by the industry putting 210,250 tons of Bartletts in cans. This is the second biggest pack in recent years and compares with 213,920 tons in 1951; 212,504 in 1950; 171,703 in 1949; and 175,789 in 1948.

PRODUCTION—ALL PEARS—Million Bushels

Average: 1941-50	30	1951	30
1950	29	1952*	30

Counting all varieties of pears, the crop on the trees is a record. California estimates her crop at 14,334,000 bushels, and the U.S. had an estimated crop of 30,494,000 bushels. The U.S. crop was 466,000 bushels larger than in 1951. It has been pointed out that, nationally, pears are the only fruit crop to exceed 1951's big crops.

The fresh market has been very lively. The price has been good and the volume has been outstanding. The East has had the taste and the money for fresh fruit this season.

To mid-November California had shipped 1,625,000 boxes of fresh Bartletts and they have averaged $4.31 on the auction. The volume is the outstanding feature of these figures, having been exceeded only three times in the past 14 years.

Interstate shipments of Bartletts show 5,073 cars from California, which is the fifth largest of record. Oregon shipped 2,230,000 bushels and Washington 3,465,000 bushels.

Association Planned

As a consequence of what happened to canning Bartletts this year, the growers are considering the formation of an association of growers which will have title to the greater part of the crop and will bargain with the canners for a fair price.—*Jack T. Pickett*

Citrus

Florida Tops World in Citrus Production

Having attained a pre-eminent position in the production of citrus during the past few years, Florida will maintain that position quite firmly in the 1952-53 season if present indications are borne out.

ORANGE PRODUCTION—Thousand Boxes

	Average 1941-50	1951-52	1952-53*
California, all	47,640	38,410	42,000
Navels & Misc.	17,779	12,600	14,600
Valencias	29,861	25,810	28,000
Florida, all	49,940	78,600	77,000
Early & Midseason	27,110	43,800	43,000
Valencias	22,830	34,800	34,000
Tangerines	4,100	4,500	4,700
Texas, all	2,700	300	1,000
Arizona, all	992	730	1,000
Louisiana, all	314	50	50

GRAPEFRUIT PRODUCTION—Thousand Boxes

	Average 1941-50	1951-52	1952-53*
Florida	23,140	36,000	33,000
Texas	16,772	200	400
Arizona	3,344	2,140	2,700
California	2,966	2,160	2,340

LEMON PRODUCTION—Thousand Boxes

	Average 1941-50	1951-52	1952-53*
California	12,614	12,800	13,100

LIME PRODUCTION—Thousand Boxes

	Average 1941-50	1951-52	1952-53*
Florida	204	260	300

For the past three seasons Florida has produced more oranges, grapefruit, and tangerines than all the rest of the citrus-producing states together, and also more than were produced on any other continent. Barring a severe freeze or some other unforeseen blow, Florida will produce about 119 million boxes of citrus during the 1952-53 season, or, to put it another way, one of the largest crops in Florida history.

Excellent Outlook

Mid-autumn of 1952 found Florida's 453,000 acres of bearing groves in good condition, the fruit sizing up well, and the quality of the fruit generally higher than is expected at that time of year. There were several reasons for these cheerful conditions. Citriculturist Fred Lawrence of the University of Florida Agricultural Extension Service, a man who has been living and working among citrus trees since early boyhood, listed these:

For the most part, growers wound up the 1951-52 season "in the black" and thus were enabled to continue the excellent care they have given their trees for the past few years. They did not stint on fertilizer, cover crops, irrigation, or pest control materials and measures.

High Quality Expected

Lack of rainfall from mid-May to mid-July in many parts of the citrus belt caused considerable wilting of leaves in unirrigated groves at the peak of the drought, but rains in late summer and early fall revived the trees surprisingly well and growers were delighted with the good sizing of their fruit. As there is a general belief that citrus that has been through such a dry spell is of higher quality and contains more sugar or soluble solids, the fruit for 1952-53 is expected to be extraordinarily good.

Another favorable factor is that the 1952-53 crop at maturity will have been on the trees longer than any crop in recent years, which means that it should be more uniform in size and quality. This is the result of good crop weather and good, uniform bloom in the early spring of 1952.

More Oranges than Last Season

Florida is expected to produce 81 million boxes of oranges, or about 3 million more than in 1951-52. The expected 33 million-box crop of grapefruit for 1952-53 will fall about 3 million boxes short of 1951-52 grapefruit production. The 1952-53 tangerine crop is expected to be 4.7 million boxes—about the same as 1951-52—and the 1952-53 lime crop has been predicted at 370,000 boxes—somewhat higher than last season's.

Increase in Concentrates

The carryover of concentrated and processed fruit from 1951-52 was much smaller than usual. Sales of frozen orange concentrate set a new record during the 1951-52 season. Sales of fresh fruit climbed considerably above the total for the preceding year, notwithstanding the competition of the frozen orange concentrate which sold at somewhat lower average prices than in 1950-51.

Florida produced 44,030,683 gallons of frozen orange concentrate juice in 1951-52, and production in 1952-53 is expected to run as high, probably higher. Production of frozen grapefruit concentrate juice is expected to total 2 million gallons

*Preliminary

or more, as compared with 1,097,564 gallons in 1951-52. Florida now has 20 concentrate plants, including a new plant at Frostproof, which has a capacity of a million gallons a year.

Orange Returns Good

Studies by Zach Savage, economist with the Florida Agricultural Experiment Stations, showed that the average cost of producing a box of oranges in Florida in the 1951-52 season was approximately 55 cents; of grapefruit, 45 cents; and of tangerines, 75 cents.

While orange growers received average returns comfortably above their production costs in 1951-52, growers of grapefruit and tangerines failed to break even in many instances. Choice red and pink grapefruit brought good prices generally, but the price of white seeded on the whole was unsatisfactory.

"Quick Decline" a Problem

Serious concern about the positive identification of a mild or intermediate form of quick decline in trees is felt by growers in several areas. Pathologists have described the trouble as not nearly as drastic and destructive as the quick decline found in other domestic-producing areas or in Latin America, but many Florida growers already are planning to combat the disease with new plantings of tolerant rootstocks such as rough lemon, Cleopatra mandarin, and sweet seedling. One grower has interplanted more than 200 acres of tolerant rootstock.

Florida citrus growers, on the whole, however, are reasonably optimistic about the 1952-53 season. The general idea among them seems to be that the new crop will be a good, high quality one, and that they will make a reasonably good profit in 1952-53.—*Clyde Beale.*

Short California-Arizona Crop Brings Good Prices

The California-Arizona citrus season, which closed November 1, 1952, was characterized by a short crop and some frost damage. As a result prices were good all through the season on lemons and oranges. The average delivered price for lemons in all auctions during the year was $8.11 a box, compared to $8.05 last year, but the higher freight rates brought the f.o.b. price below that of 1951.

Prices of the short crop of Valencia oranges for the season averaged about the same as last year. The fruit had much competition from canned concentrated orange juice.

The short crop of navel oranges brought good prices. The navel is an eating orange—not a juice orange—and therefore is not in competition with canned juice or with Florida juice oranges. California-Arizona navel oranges outsold Florida fruit all through the navel season.

PRICES—Fresh

Season Average Price Per Box Received by Grower F.O.B. Packed

	1948-49	1949-50	1950-51	1951-52*
Oranges				
(including tangerines)				
Arizona	5.52	2.94	4.32	4.83
California	3.89	3.70	3.84	4.12
Florida	2.90	3.62	3.31	2.50
Texas	2.47	3.58	2.78	6.02
Grapefruit				
Arizona	2.37	2.35	2.03	2.37
California	3.38	3.27	2.79	2.93
Florida	2.35	3.43	2.68	2.32
Texas	1.69	3.15	2.77	6.47
Lemons				
California	7.11	6.00	5.88	5.88

PRICES—Processed

Season Average Price Per Box Received by Grower P.H.D.

Oranges				
(including tangerines)				
Arizona	.53	.67	.86	1.06
California	.76	1.02	.76	.56
Florida	1.52	2.31	1.83	1.05
Texas	.63	1.43	.72	—
Grapefruit				
Arizona	.19	.35	.46	.26
California	.01	.33	.16	.09
Florida	.63	1.83	.91	.42
Texas	.35	1.73	.64	.60
Lemons				
California	.79	2.33	.98	1.60

Frozen Lemonade Popular

Lemons were in short supply both for shipment in fresh form and for processing. Frozen concentrated lemonade found a tremendous market; canned single-strength lemon juice likewise found a ready market.

Total rail shipments of oranges from California and Arizona during the 1951-52 season were 35,887 cars compared with 43,973 last season.

Total tree crop of lemons was a thousand cars less in the 1951-52 season than in the 1950-51 season, but the total movement in fresh form was 20,845 cars, compared to 20,408 cars last season. During the season 34 per cent of the crop was sent to by-products compared to 37 per cent the preceding season.

Revolution in Packaging

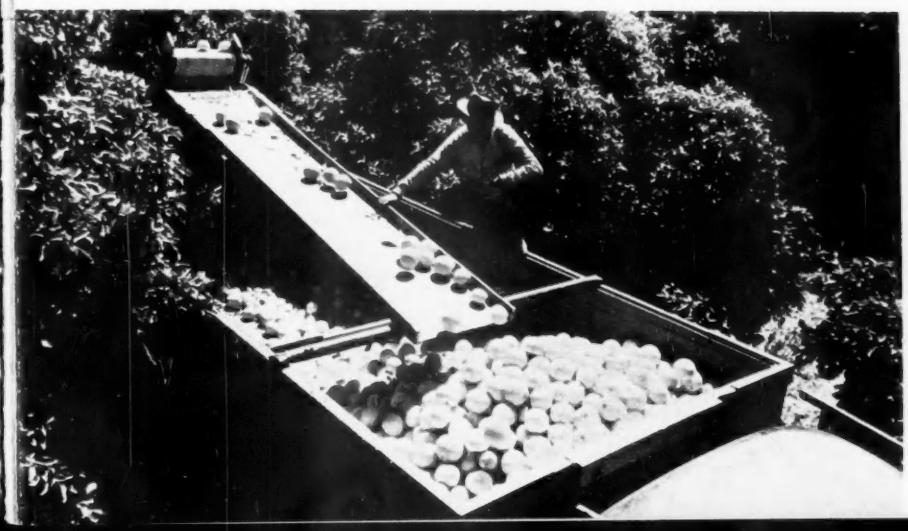
The marketing feature of the 1951-52 season was the shift of the shippers away from the standard wooden box, which had been used for decades, to the half-box corrugated cardboard container. Some lemon packers switched to the half-box almost 100 per cent and more will switch to it next season.

Experimental shipments of oranges in the same type container were so successful that the half-box corrugated cardboard container has been legalized by the California State Board of Agriculture. Numerous advantages are claimed for this container, foremost of which is its low cost. The difference in the cost of two half-box corrugated containers and one standard wooden box for lemons is about 24 cents.

Labor Costs Cut Drastically

For lemons, a system called "volume fill" has been developed in connection with the use of cardboard containers. New sizing equipment permits fruits of the same size to be "sheared" off the conveyor belts into the box. When full, the box contains not less than the number of

(*Continued on page* 48)



Grapes

Two States Increase Native Grape Crop

Preliminary estimates on the 1952 production of native grapes indicate a crop slightly larger than the 10-year (1941-50) average and 11 per cent above 1951.

Examination of production estimates by states shows that the increase in total tonnage over 1951 came almost entirely from two leading states, Michigan and Washington. After an almost complete freeze-out in 1951, Michigan vineyards yielded 26,300 tons more in 1952. Washington's 5,000-ton boost over 1951 is also attributed largely to low temperature injury in 1951.

Quality Good

The crop in other leading states was slightly lower than that of 1951. Yield varied considerably from vineyard to vineyard in the New York-Pennsylvania-Ohio grape belt on the south shore of Lake Erie. A few vineyards on good soil, maintained in good vigor, produced as well as or better than in 1951 but in general the yield was lower.

The weakening effect of two above-normal crops (1950 and 1951) was reflected in fewer clusters per vine. Hot, drying winds at bloom were blamed for the poor set which resulted in smaller and more straggly clusters. Yield per acre ranged from below 2 to 4 tons, the majority of vineyards running between 2 and 3 tons. Quality of crop was excellent.

Prices Still Unknown

Prices paid for the 1952 crop will not be known until well in 1953 because a large part of it is marketed through co-operatives. Present indications are that they will be no higher than for 1951, possibly somewhat lower. Many eastern wineries paid as much for grapes as last year, but buying was restricted.

*Preliminary

Co-op to Take Over Welch

Two developments of importance to growers of native grapes took place in 1952. The co-operative trend in the industry continued with the signing of an agreement between the Welch Grape Juice Company and the National Grape Co-operative Association, under the terms of which National will eventually become the owner of the entire Welch business, the largest in the unfermented juice field. National members supplying grapes to Welch plants in six states (N.Y., Pa., Mich., Ark., Mo., Wash.) will participate in proportion to the number of tons delivered.

International Co-operation

The year 1952 also marked the beginning of international co-operation to solve problems of the industry. Two meetings of Canadian and American growers were held, one in March and the other in August, to discuss methods for avoiding a repetition of the demoralizing effect of Canadian grapes on the U. S. market in 1951. Canada's crop is estimated at 49,000 tons, about the same as in 1951.

As a result of these conferences, Canadians are working on a plan for

(*Continued on page* 50)

PRODUCTION—Tons

State	Native Grape Varieties Average 1941-50	1950	1951	1952*
N.Y.	55,540	95,800	60,700	58,800
Mich.	33,250	43,000	10,000	36,300
Wash.	18,590	23,000	22,700	27,000
Pa.	16,940	30,900	17,400	17,200
Ohio	13,500	19,100	15,600	13,700
Ark.	9,480	10,800	10,800	8,800
Mo.	4,490	4,700	4,400	3,500
N.C.	4,070	3,000	3,200	2,700
Ill.	2,880	2,600	2,000	1,800
Iowa	2,660	2,500	2,200	2,000
Ga.	1,980	2,000	1,900	1,900
Ind.	1,880	1,200	800	1,100
Kans.	1,860	1,400	1,300	800
N.J.	1,820	1,700	1,300	1,200
Va.	1,495	1,100	1,100	1,100
Ore.	1,460	1,400	1,500	1,100
S.C.	1,190	1,400	1,500	1,200
W.Va.	1,140	1,000	900	900
Total	174,225	246,600	159,300	181,100

PRODUCTION—Thousand Tons—All Varieties

	California	Other States
Average 1941-50	2,627	181
1950	2,440	248
1951	3,224	162
1952*	2,956	184

PRICES—Processed

Season Average Price Per Ton Received by Grower

	1949	1950	1951*
New York Concords	110.00	95.00	75.00
New Jersey—All	57.00	83.00	65.00
Pennsylvania Concords	100.00	112.00	83.00
Michigan—All	106.00	88.00	87.00
Washington—All	46.00	85.20	62.40
California			
Canned	38.70	65.00	63.00
Dried**	135.00	261.00	162.00
Crushed	26.80	61.00	31.00
All Fresh	39.40	75.20	48.30
Total sold	32.50	65.00	37.20

**Dried basis (4 tons fresh to 1 ton dried)

Plums and Prunes

Short Plum and Prune Crops on Pacific Coast

Plums and prunes are fruits which have their greatest producing concentration in the Pacific Coast states of California, Oregon, Washington, and the inland state of Idaho. California is the leader in plum and prune production, producing an amazing variety of plums for fresh shipment and consumption.

The 1952 season witnessed reduced production of Pacific Coast plums and prunes. California plums saw the most notable reduction with a tonnage of only 56,000 compared with 97,000 tons for 1951. California prunes were reduced nearly 25 per cent in volume.

California prunes are largely of the French variety and are utilized as either dried prunes or prune juice. Production of this fruit was less by 25 per cent than the year preceding.

Italian prunes, also known as Purple plums, are a Pacific Northwest product. Oregon with average annual production of 71,070 tons leads, followed by Washington with 22,910 and Idaho with 21,580 tons. The 1952 season showed production much reduced in Oregon where preliminary estimates totaled only 46,600 tons. Idaho had slightly above average production with 23,800 tons; Washington was down with only 16,500 tons.

Grower Returns

Grower returns were favorable for the much lighter-than-average California plum crop. Idaho prune growers are reported to have experienced an average prune season from the standpoint of returns. Incomplete but nevertheless indicative surveys show that Idaho growers received an average of 75 cents per half bushel basket delivered at the shippers' warehouse.

Western parts of Oregon and Washington depend almost entirely on a processing outlet for Italian prunes. Cannery demand for this fruit was only moderate. Prices paid by processors ranged from $45 to $55 a ton, a figure similar to the year before when production was greater by 10,000 tons. Considerable quantities of western Oregon prunes were not harvested.

Eastern Oregon or Milton-Freewater and Walla Walla prunes go largely to fresh market where good quality and earliness on the market usually combine to bring favorable returns. This was the case in 1952.

Central Washington prunes go both to fresh market and to processors.

PRODUCTION
PLUMS—Tons

	California	Michigan
Average: 1941-50	79,000	5,060
1950	77,000	7,100
1951	97,000	4,800
1952*	56,000	7,800

PRUNES

	California	Washington	Oregon	Idaho
Average: 1941-1950	459,250	22,910	71,070	21,580
1950	372,500	13,600	22,300	10,000
1951	442,500	13,600	59,800	22,000
1952*	337,500	16,500	46,600	23,800

Except for early varieties, prunes from the Yakima Valley did not experience a good marketing season.

Few fruits experience the wide variations in demand and price which is common to Italian prunes. In the processing of this fruit, the canned output is large one year and small the next. Invariably, when the canned pack total is large there is an extensive carryover the following year resulting in depressed prices and a short pack. This fine and nutritious fruit is commonly regarded in the retail trade as a low price bargain fruit item. Per capita consumption of canned Italian prunes averages about one can per capita each year.

Promotion

As yet, the bulk of Northwest Italian prunes receives no promotional support. Fresh prunes of Idaho now receive the sales impetus from a state grower-supported promotion that has shown excellent possibilities in opening and enlarging new markets. Prune producers of Washington also promote their fresh prunes through the Washington State Fruit Commission. Because at least 80 per cent of the processed prunes originate in Oregon where no provision is made for promotion or market expansion, this fruit in canned form gets no sales assistance through advertising.

Juices and Concentrates

A significant development in the West Coast prune industry is the growing consumption of prunes in the form of juices or nectars. This is particularly true of California dried prunes, which are reprocessed and sold in liquid form under a number of well-promoted brand names.

Research, encouraged by the Washington State Fruit Commission, is also underway at the Western Regional Research Laboratory at Albany, Calif., to develop acceptable Italian prune juices and concentrates. Progress has been sufficient to stimulate further experimentation by private packers. The Church Grape Juice Company of Kennewick, Wash., has this season processed a trial quantity of Italian prune juice which may be a forerunner of a promising new outlet for prunes of the Northwest.—*Fred H. Westberg, Washington State Fruit Commission.*

Nuts

Eastern Nut Growing Assuming Greater Importance

Nut growing in the eastern states, with the exception of pecan, is limited to small plantings of improved native and introduced species. However, the crop of wild black walnuts is important in certain areas, and Chinese chestnut has definite possibilities for commercial development.

Pecan Crop Important

The 1952 pecan crop is estimated at 127 million pounds. This is 19 per cent below the 1951 crop but 2 per cent above average. The 1952 production is made up of about equal amounts of improved varieties and seedlings. Georgia and Alabama produced about two-thirds of the crop of improved varieties; Texas and Louisiana about two-thirds of the seedling crop.

Georgia, Florida, Alabama, Mississippi, Arkansas, and Oklahoma, produced fewer pecans in 1952 than in 1951, and Louisiana about the same amount. Texas produced some 25 million pounds more than in 1951. Oklahoma's crop is only one-third as large as the previous year.

An interesting development is taking place in southwestern Kentucky. The Kentucky Agricultural Experiment Station is encouraging the top-working of native sprouts to improved hardy varieties. Trees top-worked in 1948 bore sizable crops in 1952.

Black Walnuts Shelled Mechanically

The black walnut grows abundantly throughout eastern states. In addition to high quality timber, black walnuts produce valuable nut crops. Although accurate estimates are not available most reports are that this season's crop is very light.

Since early days the hand shelling of wild black walnuts has been an important industry in the southern Appalachian region. Now, with the development of efficient shelling machinery the black walnut shelling industry is expanding rapidly.

During the 1951-52 season shelling plants in Tennessee, Missouri, Arkansas, West Virginia, Kentucky, and Oklahoma processed over 22 million pounds of black walnuts. Hulled nuts brought about $4.25 per hundred pounds; processed kernels about 85 cents per pound.

The accumulation of shells at commercial plants has been a problem. Recently, however, methods of grinding the shells into shell flour have been developed.

Chinese Chestnut Popular

Chinese chestnut has been widely planted throughout the East during the past 10 years and nurseries have been hard pressed to meet the the demand for seedling trees. Most of these seedlings are being planted to produce nuts for local use. However, commercial orchards of grafted varieties are now being established in Georgia, where Chinese chestnut appears to be well adapted.

Several years ago the USDA introduced three improved varieties—Nanking, Kuling, and Meiling. These new varieties, and others soon to be released, provide a sounder basis for this developing industry. Growers

(*Continued on page* 52)

*Preliminary

Berries and Brambles

Strawberry Acreage Reduced by Drought

Strawberry acreage for the United States in 1953 reported by the USDA in October, 1952, was indicated at 119,000 acres compared to 151,000 acres for 1951. Louisiana's drop in acreage from 23,000 in 1951 to an estimated 15,000 in 1953 accounts for about 25 per cent of the reduction.

Severe droughts this past summer plus uncertain labor conditions were largely responsible for the reduction in strawberry acreage. States that have been hard hit by dry weather are Louisiana, Arkansas, Missouri, Tennessee, and Kentucky.

The 1953 acreage for these five states is indicated to be 20 per cent less than the 1952 and, in addition, plant stands on much of the existing acreage are thin. Production in 1953, therefore, throughout most of the early and mid-spring districts will be considerably below that in 1952.

High Yields in California

One bright spot in the picture is the enormous production obtained by California growers. Approximately 12 million 24-quart crates of strawberries were produced in the U.S. last year, of which California produced almost 25 per cent. Along with greatly increased acreage in California (now estimated at 8,900) there has been a tremendous increase in yields per acre—345 crates per acre in California compared to 120 for the next highest state and an overall average of 94.

The high yields in California have been due in part to an increased acreage in the Watsonville-Morgan Hill district where plants bear heavily from spring to fall; but the introduction of new, adapted varieties for the district by the Strawberry Institute of California and the use of relatively virus-free stocks have been important factors also.

Improved Stocks

Concerted efforts by research workers, nurserymen, and growers in Oregon and Washington have done much to rehabilitate the Marshall variety which probably constitutes 95 per cent of the commercial acreage in the two states. Improved foundation stocks and the increased emphasis on use of virus-free stocks have helped stabilize the acreage and are partly reflected in increased yields per acre.

Improved stocks for eastern growers are also on the way as shown by the first distribution of foundation stocks of four varieties to strawberry nurseries this winter. These foundation stocks are known to be substantially virus-free and, if they are maintained as such by nurseries, growers can be assured of considerably better planting stocks.

Newer Varieties in Demand

Some of the newer varieties are receiving quick acceptance by growers. Acreage of the Armore variety is increasing rapidly in the Aroma region and the variety is well worth trying in other areas requiring a late ripening variety. Tennessee Beauty, another late mid-season variety, is increasing in popularity, particularly in Tennessee and Kentucky. It is a productive variety under favorable moisture conditions and the fruit has good frozen pack qualities. Albritton

(*Continued on page 55*)

FRUIT BLOSSOM *and* HARVEST QUEENS *of* 1952

Shirley Eaton, Queen of Illinois Fruits.

National Cherry Festival Queen Ruth Belanger.

Shenandoah Apple Blossom Queen Nina ("Honey Bear") Warren, daughter of Gov. & Mrs. Earl Warren.

Maine Apple Queen Mariam Whitten.

Appalachian Apple Harvest Queen Nancy Lang of West Virginia.

Lebanon, Ore., Strawberry Queen Glenda Campbell.

Left—Vermont Apple Queen Joyce Yandow.

Minnesota Raspberry Queen Benita Johnson of Hopkins.

Virginia Click, Queen of 33rd Washington State Apple Blossom Festival.

Florida Citrus Exposition Queen Patricia Burgoon.

Universal Peach Queen Joan Thompson of Kentucky.

New Jersey Apple Queen Margaret Eileen Zee.

Michigan Apple Queen Carol Fahling.

California Orange Show Queen Paula Fagette.

Ohio Grape Festival Queen Betty Ann Parker.

Idaho Cherry Festival Queen Rose Marie McRae.

A Special Word from the New Secretary of Agriculture

WHAT is the outlook for fruit growers in 1953? What policy will the government pursue on controls and price supports?

With Ezra Taft Benson at the helm of the U. S. Department of Agriculture, the horizon for agriculture appears especially bright.

The importance to the fruit industry of the appointment by President-elect Eisenhower of Mr. Benson as Secretary of Agriculture prompted AMERICAN FRUIT GROWER to ask Mr. Benson for his views on the perplexing problems facing fruit growers. His letter, reprinted here, expresses a sincere hope that fruit growers will co-operate and support him fully in the difficult tasks that lie ahead.

It is known that Mr. Benson, like General Eisenhower, favors a price support program but warns against "leaning on Government aid instead of your own initiative."

Such a program is in line with the beliefs of various fruit grower groups, including the Indiana Horticultural Society which last year passed a resolution asking that the USDA stop all subsidies and socialistic practices which presage the loss of free enterprise for all agricultural undertakings.

The Mormon faith is founded on self-help, and Mr. Benson is a Mormon. Farm-born to Mormon parents in Idaho, he attended a Mormon academy. In 1943 he became one of the Quorum of Twelve Apostles, the governing body of the Mormon church.

Mr. Benson's formal background in agriculture was obtained at Utah State Agricultural College, Brigham Young University, and Iowa State College. His agricultural career includes six years as a livestock farmer in Idaho, one year as a county agricultural agent, and eight years as farm marketing specialist and extension economist at the University of Idaho.

From 1939 to 1944 he was executive secretary of the National Council of Farmer Co-operatives in Washington. Mr. Benson held this post until 1944. After the war he became chairman of the American Institute of Co-operatives.

The appointment of 53-year-old Ezra Taft Benson, a distant relative of Ohio's Senator Robert A. Taft, means the application of new ideas to the farm-surplus problem. THE END

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EZRA TAFT BENSON
47 EAST SOUTH TEMPLE STREET
SALT LAKE CITY, UTAH

December 3, 1952

Mr. R. T. Meister, Editor
American Fruit Grower
Willoughby, Ohio

Dear Mr. Meister:

Gratefully I acknowledge receipt of your wire of November 25, expressing confidence in my appointment as Secretary of Agriculture.

I am sure your group can well appreciate how humbly I approach this great assignment which has come so unexpectedly. I shall need your full cooperation and wholehearted support and feel confident I shall receive both.

I am not in a position to make any policy statement at the present time, as you can well appreciate. I am enclosing herewith photograph and hope that at some future time it will be my pleasure to meet you personally and become better acquainted with your group.

With warm personal regards and best wishes for the success of the fruit growers of America and your own success as publisher of the American Fruit Grower, I am,

Faithfully yours,

Ezra Taft Benson

EZRA TAFT BENSON

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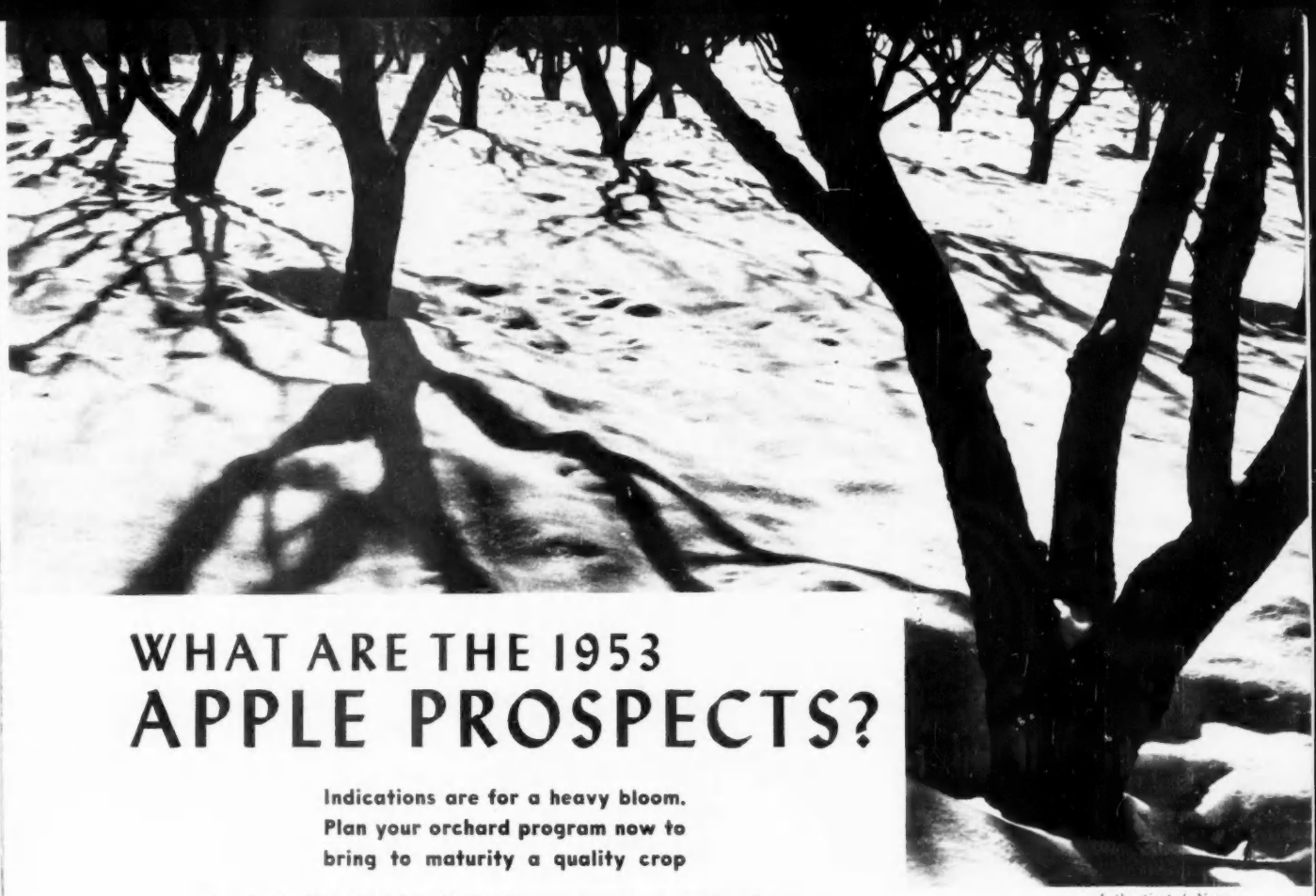


WHAT ARE THE 1953 APPLE PROSPECTS?

Indications are for a heavy bloom. Plan your orchard program now to bring to maturity a quality crop

By J. R. MAGNESS, *U. S. Department of Agriculture*

Authenticated News

THE apple bloom in 1953 is expected to be moderately heavy in all of the principal producing areas of the United States. The 1952 crop was below average in nearly all districts but especially in the northern areas from New England to Michigan and in the Middle Western states. Rainfall during the growing season of 1952 was below normal in most producing areas, particularly in the midwestern states. Both the light fruit crop and sub-normal rainfall tend to result in increased fruit bud formation. Thus we can expect a heavier than normal bloom in practically all producing districts.

In general, insect control in orchards in 1952 was good. There was more codling moth in some areas than in recent years, especially in the areas that were hotter and drier than normal. Apple scab damage was spotted—heavier than normal losses occurred in a good many orchards in eastern apple-producing regions. Thus the orchards will start the 1953 season with a moderate carryover of insect pests and a moderate to heavy scab carryover in the fallen leaves. Under some conditions scab carryover may also occur in the tops of the trees in late infections on bud scales, or late shoot growth.

Program for 1953

Tree Removal—For the past two or three years there has been concerted effort in many apple producing areas to remove trees of unprofitable varieties, trees that have become too old and high to produce quality fruit economically, and trees in soil areas or sites that are not satisfactorily productive. Many orchardists are following the policy of moderate replanting and orchard renewal. These practices are certainly sound and should be expanded in 1953.

Pruning—In order to control insects and diseases satisfactorily it is essential that the trees be sufficiently open to cover them adequately with spray material. Pruning out of weak wood is also an important factor in getting size and finish on the fruit. If trees have not been well pruned during the past two or three seasons it is particularly important to prune them prior to the start of growth in 1953 when a heavy crop is in prospect. Apple trees do not require pruning every year to produce satisfactorily but it is essential that they be well pruned at least every two to three years to obtain adequate spray coverage and to reduce the percentage of small, poorly developed apples.

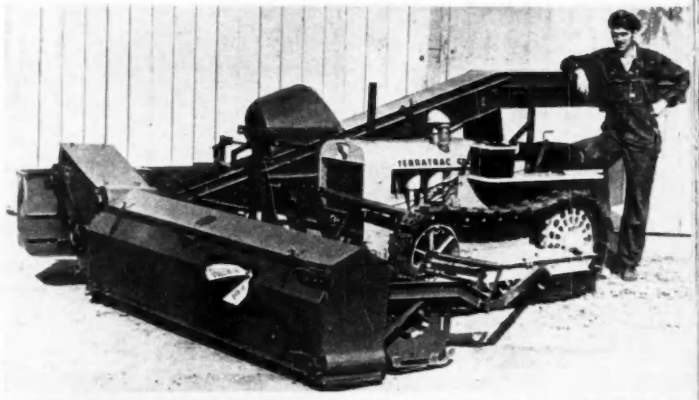
Fertilizer—Most commercial apple orchards are regularly fertilized. If the trees made adequate growth in 1952 a continuation of the program followed in 1952 is all that is required. If growth was subnormal in 1952 some increase in fertilizer application should be made. If trees appear over-vegetative some reduction in fertilizer usage is in order.

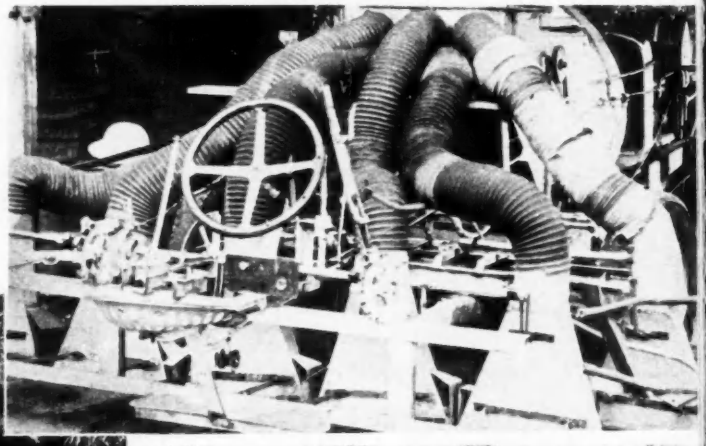
Pest Control—The orchardist now has available an array of insect and disease control materials, many of which were unknown even five years ago. It is difficult for even research men to keep abreast of these materials, and it is even more difficult for the orchardist. In each district spray recommendations made by the agricultural experiment stations and extension services are available to growers. These are developed on the basis of extensive experimental tests and observations on commercial experience. In general these recommendations will prove satisfactory. The materials recommended in the programs for different areas, however, must be thoroughly applied and particularly must be applied at the proper times.

(*Continued on page* 58)

LATEST DEVELOPMENTS IN ORCHARD MACHINERY

Mechanical robots perform efficiently effecting big savings in time and labor



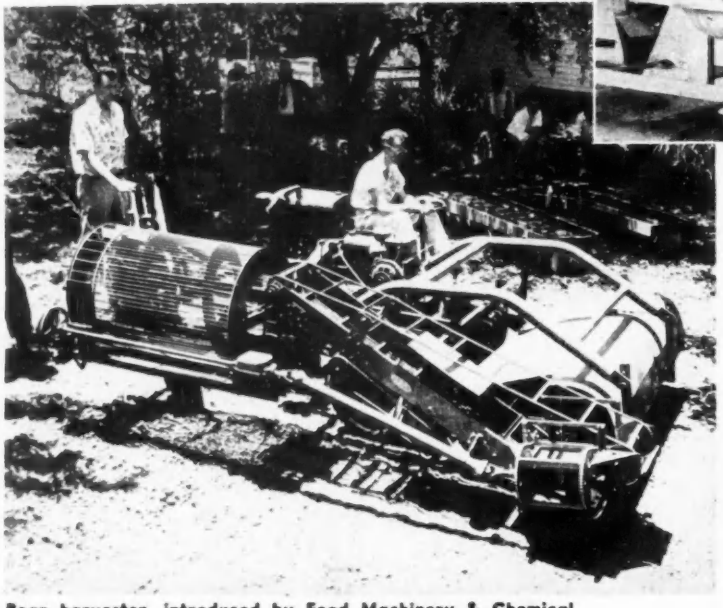


Above—Brush-type Fortier nut harvester is made by Jeffrey Bros., Chico, Calif. The outside brushes sweep nuts to center sections where covered brush sweeps them into the machine.

Above right—Rake-type nut harvester made by A. D. Goodwin & Son, Manteca, Calif., can be attached to most tractors, sweeps a 7-foot swath, collects nuts in field bags or a trailer.

Right—Many growers feel the suction-type harvester, like the one pictured at the right, developed by Roy Gladney and son of Guinda, Calif., is the answer to their nut harvesting problems.

Three nut harvesting photos courtesy California Almond Growers Exchange

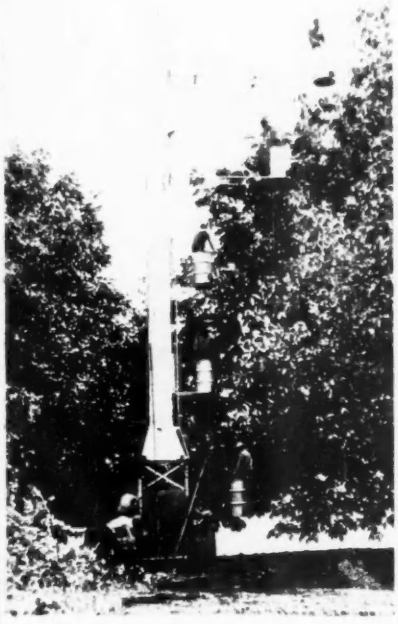


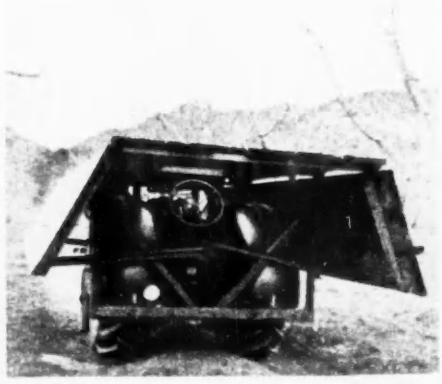
Bean harvester, introduced by Food Machinery & Chemical Corp., San Jose, Calif., is designed to pick an acre of walnuts per hour with minimum of dirt and leaves. Photo by Hal Higgins.

All hand hoeing of row crops can be eliminated with the Friday self-propelled power hoe, made by Friday Tractor Co., Hartford, Mich.

This platform-power pruning outfit was developed by the USDA research staff, Beltsville, Md. The rig, with pneumatic tools, cuts down the amount of time consumed in pruning by one-third. Platform is 14 feet long and 10 feet wide. USDA photograph.

The homemade pruning platform, which cuts pruning time by one-third at the Alice M. Mills' orchard, Kinderhook, N. Y., is hydraulically raised and lowered on a hoist. Hydraulic pump also runs three pneumatic pruners. Photo by Henry Fischer.

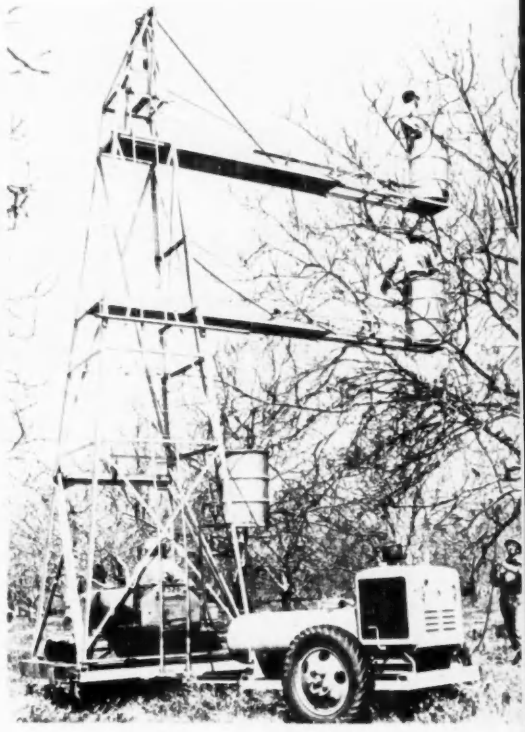




Left—Travis Boone's "Old High-Pockets" rears head 50 feet as workers in buckets flail off walnuts. Photograph by Hal Higgins.

Above—Sides of this pruning platform, designed by Joe Shanks, Glenwood Springs, Colo., are lowered for easy movement.

Right—Travis Boone tower has air-powered catwalks which extend six feet for closer pruning. Photo by Kaler Kommercial Studio.



Friday straw spreader, made by Friday Tractor Co., mulches more than an acre of strawberries an hour, can be pulled by any tractor, mulches on or between rows, handles wet or dry straw.

Compressor equipment built by Penstone Orchards, Griggsville, Ill., for their pneumatic pruners. Air pressures from 120 to 140 pounds are sufficient for two pruners.

Eden strawberry

1952'S NEW FRUIT VARIETIES

By REID M. BROOKS and H. P. OLMO
University of California

AS in the past few years, the Register of New Fruit and Nut Varieties again presents a short preview of the important new varieties that have been recently reported by the many co-operating horticulturists in the United States and Canada.

A summary of the Register has recently been published in book form by the University of California Press and includes all important varieties introduced during the period 1920-1950, inclusive. This comprises the most extensive and up-to-date listing of modern fruit and nut varieties originating in North America. Brief descriptions appear for 1,100 varieties, including the whole alphabetical list in species from almond to white sapote. The place of origin, the name of the originator, parentage of the variety, and patent number also are included. This volume is a useful reference for commercial growers, nurserymen, and plant breeders.

Annual lists of more recent introductions will continue to be published in the Proceedings of the American Society for Horticultural Science, and the following information is given on some varieties which will appear in the forthcoming list. Most of the varieties were introduced during 1952.

APPLE

Crandall was originated by the late Professor Charles S. Crandall, Illinois Agricultural Experiment Station, Urbana. Result of cross made in 1914, Rome Beauty x Jonathan. Tree: productive, relatively disease resistant. Skin of the fruit, red and thick. Storage season, February into April or even later, but may be picked before Winesap. Introduced commercially in 1952; suitable for cooking and dessert purposes.

Ruby is from the Ohio Agricultural Experiment Station, Wooster; introduced last year. Parents: Gallia Beauty and Starking. Fruit keeps for a long time, is of high color and good size. Blooms late. Apparently productive at an early age.

AVOCADO

Mrs. Laura McFadden of San Diego, Calif., originated the **Emerald.** Introduced commercially, December, 1951. Parentage unknown. Skin: attractive bright green. Size: medium, averaging about 7½ oz. per fruit; seed weight about 2 oz. Oil content averages 19 per cent. Season: December 15 to April in place of origin. Tree: tall, rather upright. Moderately hardy to frost at Riverside, Calif.; warrants trial in interior of that state.

BLUEBERRY

Angola originated in Raleigh, N.C., through co-operation of E. B. Morrow, North Carolina Agricultural Experiment Station, and George M. Darrow, USDA. Cross of Weymouth x (Stanley x Crabbe 4), being selected in 1940 and introduced commercially in 1952. Fruit ripens earlier than Weymouth in eastern North Carolina. Plants: vigorous, productive, highly resistant to canker. Recommended for trial as very early, canker-resistant variety for eastern N.C., but not northward.

Ivanhoe was originated by originators Weymouth blueberry. Cross between (Rancocas x Carter) x Stanley. Fruit: large, attractive; slightly later than Stanley, but intermediate in color between Weymouth and Stanley. Flavor, good to excellent. Plants: vigorous, productive, more tolerant to canker than Stanley. Recommended for trial as a large-fruited, midseason variety for North Carolina; also suggested for limited trial in other regions, north to southern New England. Introduced commerically in 1952.

Keweenaw is an open-pollinated seedling of Katharine, which it most nearly resembles in fruit characteristics. Originated by South Haven (Mich.) Experiment Station. Recommended for trial in northern Michigan near Great Lakes, where season is at least 145 days.

GOOSEBERRY

Captivator is a thornless plant. Fruit: equal in size to best American varieties. Originated by Division of Horticulture, Central Experimental Farm, Ottawa, Ontario, Canada. Cross of Spine-free x Clark; selected in 1935 and introduced 17 years later.

GRAPE

Alden was originated by Richard Wellington, New York State Agricultural Experiment Station, Geneva. Cross of Ontario x Grosse Guillaume. Vine: vigorous and productive. Clusters: large, tapering, loose. Berries: large, oval, reddish black; flesh: juicy, meaty, tender with sweet vinous flavor and pleasing aroma. Season: last of September or first of October in New York. Introduced commercially in 1952.

Bath was originated by Richard Wellington, New York State Agricultural Experiment Station, Geneva. Cross of Fredonia x (Chasselas Rose Violet x Mills). Vine: vigorous, very productive. Clusters: medium, cylindrical to tapering, compact. Berries: medium, round oval, black; flesh: tender, juicy, sweet but lacks foxy flavor of Fredonia. Season: end of September for New York. Most nearly resembles Fredonia in fruit characteristics. Introduced commercially in 1952.

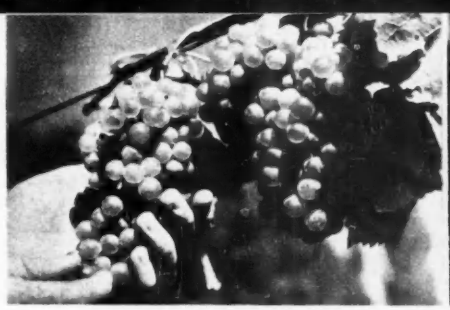
Himrod was originated by A. B. Stout, formerly of New York Botanical Gardens, in co-operation with New York State Agricultural Experiment Station, Geneva. Cross of Ontario x Sultanina. Most nearly resembles Interlaken Seedless in fruit characteristics. Selection made in 1935, propagated in 1939, introduced commercially in 1952. Vine: vigorous, productive, fairly hardy. Clusters: tapering, medium compact. Berries: medium, oval, greenish yellow, seedless; flesh: tender, juicy, melting, with vinous flavor. Season: early.

Naples was originated by Richard Wellington, New York State Agricultural Experiment Station, Geneva. Cross of Delaware x (Mills x Iona). Selection made in 1935, propagated in 1937, introduced commercially in 1952. Vine: vigorous, productive. Clusters: medium, being larger and less compact than those of Delaware. Berries: medium, but larger than those of Delaware, roundish oval, red; flesh: juicy, slightly tough, sweet, with Delaware's aroma. Skin: tougher than Delaware and less apt to crack. A desirable variety for white wine. Season in New York: early October.

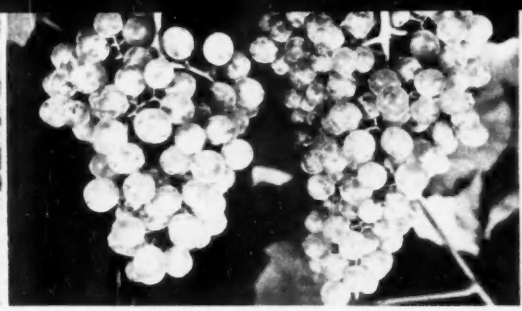
Romulus was developed by A. B. Stout, formerly of New York Botanical Gardens, in co-operation with New York State Agricultural Experiment Station, Geneva. Cross of Ontario x Sultanina; introduced commercially in 1952. Very vigorous, productive vine which is fairly hardy. Clusters: large, tapering, compact. Berries: small, roundish, with a greenish-yellow color, seedless; flesh: melting, juicy, with a vinous flavor.

NECTARINE

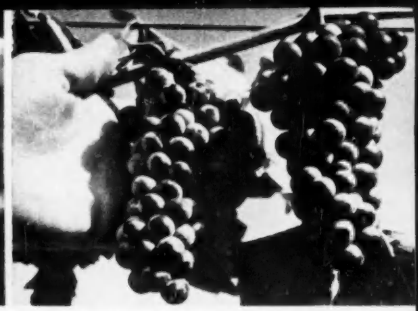
Panamint was produced by Herbert C. Swim, Armstrong Nurseries, Inc., Ontario, Calif. Cross of (Babcock peach x Boston) x (Gold Mine x Rio Oso Gem



Romulus is a yellow seedless grape.



Himrod is also a yellow seedless.



Bath is a black variety of grape.

peach); selected in August, 1945; released commercially in 1952. Patent 1,100, May 27, 1952; assigned to above-mentioned nursery. The high red skin color covers a yellow, freestone flesh; it ripens during the third week in July. The tree is vigorous and productive. This variety has a short chilling requirement and is adapted to southern California conditions.

Red Grand is an introduction made by F. W. Anderson, Merced, Calif. Patent 1,060, January 1, 1952; assigned to Reedley Nurseries, Reedley, Calif. Le Grand was crossed with a tree resulting from a previous cross of Kim x Le Grand. Selected in 1948; introduced commercially last year. Fruit: very similar to Le Grand but ripens about one week earlier, has more red surface color. Red Grand has a yellow flesh, and is clingstone. It is larger than Quetta.

PEACH

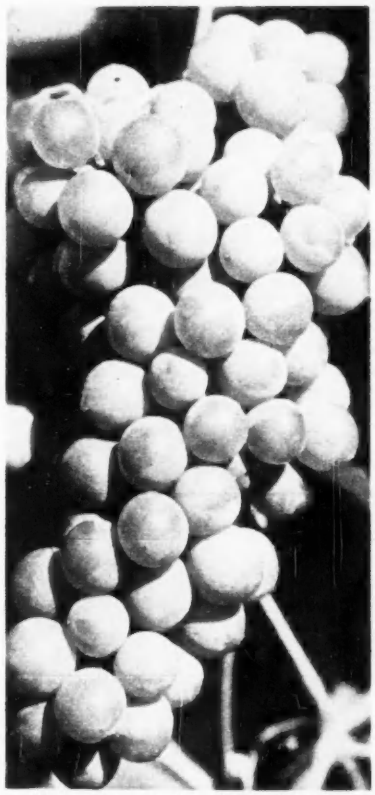
J. H. Weinberger originated **Cardinal** at Fort Valley, Ga., at the U. S. Horticultural Field Laboratory. Introduced commercially June 15, 1951. Halehaven was selfed in 1941 to produce this new variety. Flesh: yellow, clingstone, firm but melting, medium-textured, of good flavor. Size: medium, round, with a very light pubescence. About three-fourths of skin surface covered with bright, attractive red blush over yellow ground color. Approaches Dixired in size and is almost identical to it in color, appearance, firmness. Ripens 4 days ahead of Dixired and about 6½ weeks ahead of Elberta. Trees: productive but only moderately vigorous. Flowers: medium, self-fruitful, usually opening shortly after those of Elberta. Chilling requirement about 900 hours at 45° F. or lower, or slightly more than Elberta and slightly less than Dixired. On account of its moderately high chilling requirement, it should not be planted in southernmost peach areas; it should succeed where Dixired can be grown.

Hiland is another origination by J. H. Weinberger. Introduced commercially June 6, 1952. Result of cross Southland x (Hiley x Halehaven) in 1945 and first fruiting in 1948. Flesh: yellow, clingstone, fairly firm, medium textured, good flavor. Pubescence very light. A light-red blush covers about one-half the surface at the shipping-ripe stage which is one day earlier than Cardinal or 5 days earlier than Dixired. Flowers: large petals; self-fruitful. Tree: vigorous, productive. Chilling requirement about 750 hours at or below 45° F., being about the same as for Hiley. Recommended for trial in warmer peach regions; should be preferred only where winters are too warm for Cardinal.

Merrill Aurora was originated by Grant Merrill, Red Bluff, Calif. Introduced commercially fall of 1952. Patent applied for. Merrill Aurora was selected in June, 1951, from an F_2 selfed generation of J. H. Hale x Red Bird. Yellow freestone, having much of the firmness and high skin color of Red Haven but sizes more easily. Possesses many characteristics of J. H. Hale. Takes on a polish when brushed and ripens with or shortly after Red Haven. Tree has lower chilling requirement than Red Haven.

Merrill Fiesta is another introduction made by Grant Merrill. Introduced commercially January, 1952; patented May, 1952; patent 1,099. Open pollinated seedling of Kirkman Gem. Flesh: yellow, firm, freestone; no soft suture. Season: late, a few days after Kirkman Gem but not as late as Merrill Rodeo.

Grant Merrill also originated **Merrill Splendor** and introduced it to the trade in the fall of 1952. Patent applied for.



Naples is a red variety of grape.

All photographs by Robert A. Wesselmann of New York Agricultural Experiment Station

Open-pollinated seedling three generations removed from J. H. Hale x Levi, being selected in August, 1951. Flesh: yellow, firm, freestone. Skin color, bright. Ripens shortly after Rio Oso Gem. Needs to be cross pollinated.

Prenda is the new name for Rosy which was introduced 11 years ago by University of California Citrus Experiment Station, Riverside. All past and future plantings of this variety henceforth will be known as **Prenda.**

Alden is a reddish black grape.

Redcap is another origination by the U.S. Horticultural Field Laboratory (J. H. Weinberger), Fort Valley, Ga. Introduced commercially, June 6, 1952. Result of cross Southland x Dixired, made in 1945. Flesh: yellow, medium-textured, firm but melting, clingstone. Flavor, good. Three-fourths of skin covered with bright, attractive red blush. Ripens one or two days before Dixired, which it resembles. Flower petals, small. Self-fruitful. Tree: moderately vigorous, productive. Chilling requirement, 750 hours at or below 45° F., about the same as for Hiley and Southland. Suitable for areas with too little chilling for growing Dixired. Redcap's susceptibility to bacterial spot disease is about the same as for Elberta.

PERSIMMON

Miles was originated in Rutherford County, Tenn., by M. T. Miles. Introduced commercially in 1952. Parentage, unknown; is a seedling from the wild discovered before 1900 and grown locally until 1950. Quality of fruit, good. Fewer seeds than usual in the species, the native persimmon of eastern U.S.

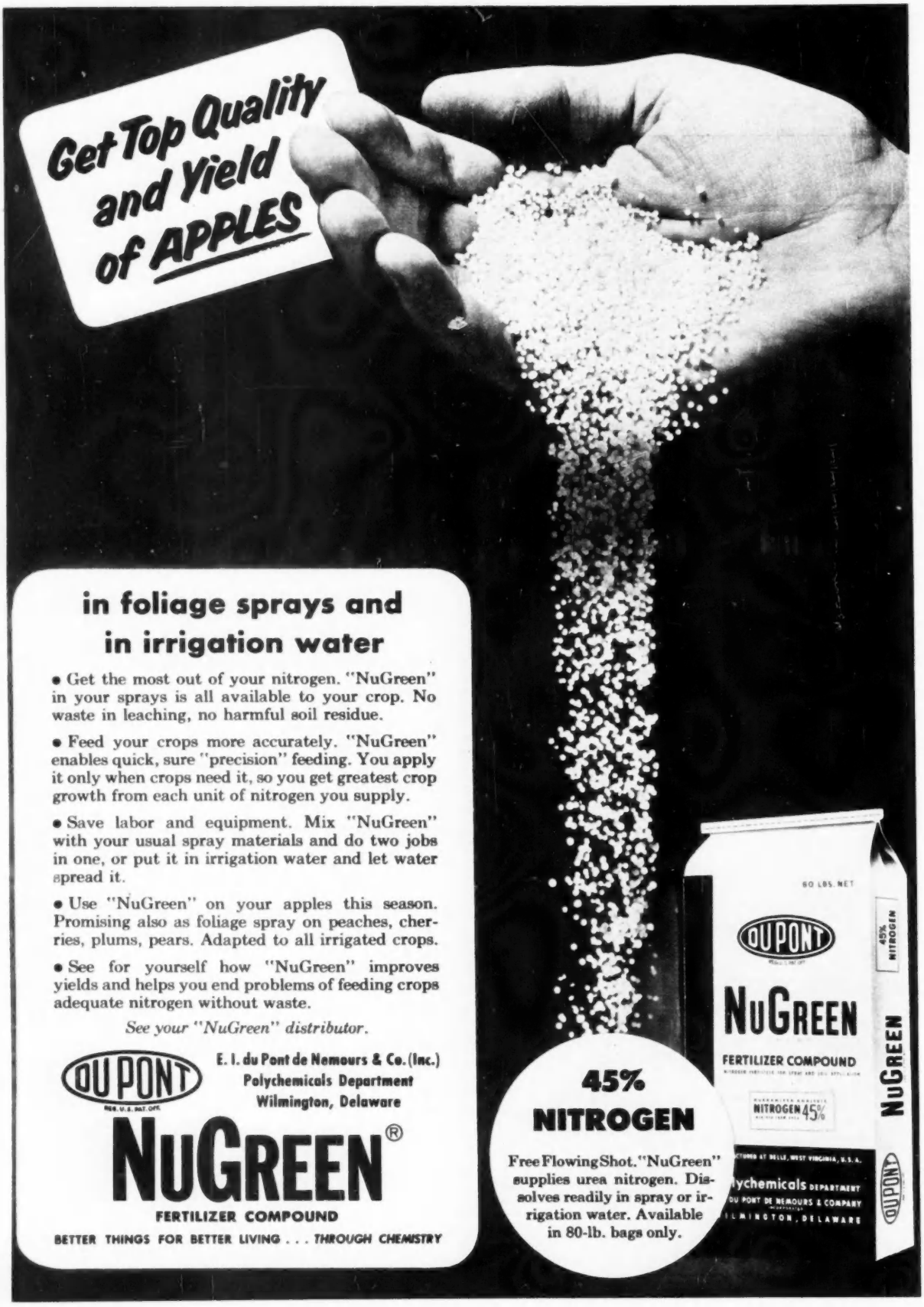
PLUM

Burmosa is one of Claron O. Hesse's originations at California Agricultural Experiment Station, Davis. Cross of Burbank x Formosa, being selected in 1945 and introduced commercially in 1952. Fruit characterized by its early season of maturity, very large size, good holding ability.

Redheart is another of Claron O. Hesse's originations. Cross of Duarte x Wickson. Introduced commercially in 1952. The fruit most nearly resembles Duarte. Its most valuable characteristic is its season of ripening—immediately after Santa Rosa.

Starking Delicious is of unknown parentage, being discovered by Mrs. T. E. Johnson, Oklahoma City, Okla. Introduced commercially in 1951, patented January 1, 1952, patent 1,064; assigned to Stark Brothers Nurseries and Orchards Company, Louisiana, Mo. Flesh: blood

(*Continued on page* 44)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A NEW EDITION FOR OUR WESTERN READERS

THIS is the first new Western Edition of AMERICAN FRUIT GROWER. As such it contains fruit growing information and news prepared especially for readers in the Western states. In addition, AMERICAN FRUIT GROWER continues to give you national coverage of the fruit industry. Thus, Western readers now receive what constitutes two magazines in one—a step designed to give you a more helpful and interesting magazine.

For AMERICAN FRUIT GROWER this is a historic milestone. Since 1880 AMERICAN FRUIT GROWER has covered the fruit industry from a national standpoint only. However, because of the changes that are occurring so rapidly in the fruit industry AMERICAN FRUIT GROWER believes that Western readers can best be served by combining sectional fruit news coverage with its national coverage.

As a national magazine AMERICAN FRUIT GROWER brings you news and experiences of growers in other states—growers who are facing problems similar to yours and who have answers which will help you. Knowledge of what is happening in other states broadens your interests and sharpens your know-how. Now, you also will have up-to-the-minute information on fruit happenings and research findings in your own state.

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This combination of national and sectional coverage gives you a bigger and more worthwhile magazine. This is a step forward for AMERICAN FRUIT GROWER in the interests of publishing a better magazine for you.

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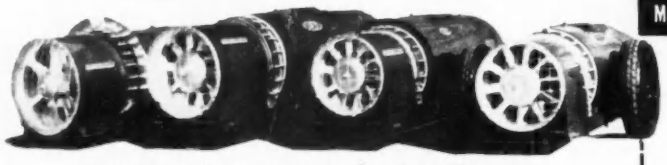

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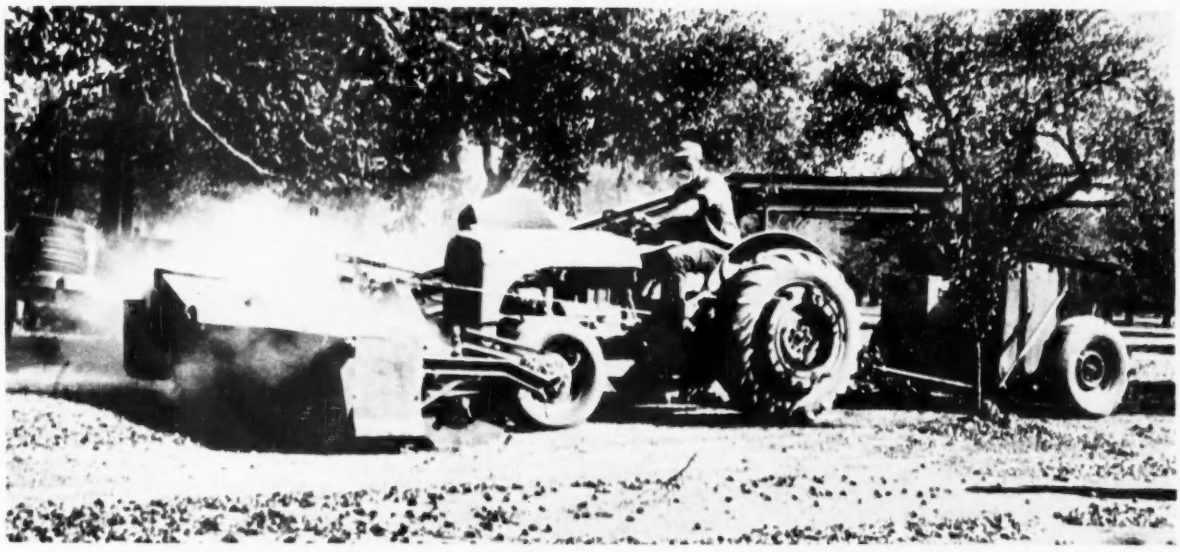


Pat Elersbee is shown operating the "pickup" harvester on the DuVander-Elersbee 130-acre prune ranch. Behind the harvester is the 250-gallon tank into which the prunes drop.

PROGRESS IN MECHANICAL HARVESTING

By HAL HIGGINS

HOW to cut costs is the big question to which fruit growers are still seeking an answer. The big bottleneck is in the harvesting operation where hand methods still prevail despite remarkable advances in mechanization of other farm operations.

A start toward machine harvesting has been made with tree nuts using "pickup" harvesters which gather the nuts from the orchard floor and deposit them in lugs or boxes. (See page 28.)

Ralph Parks, University of California agricultural engineer, reports that several resourceful growers in California this season experimented with nut harvesters for French prunes. An ingenious and novel arrangement, he reports, was developed by Don DuVander and Pat Elersbee on their 130-acre prune ranch near Windsor.

Ignoring conventional methods, DuVander and Elersbee transported the prunes from the pickup harvester to the dehydrator in water, thereby overcoming the problem of leaves and dirt which rise to the surface or settle to the bottom as the case may be.

The DuVander-Elersbee system involves two orchard tractors, pneumatic tree shakers, a Goodwin pickup harvester, a Blackwelder fork-lift mounted on one of the tractors, and a 250-gallon tank which receives the prunes from the harvester. Roughly, one pickup harvester, costing $2,600, will replace more than 20 hand pickers.

When using the harvester, the orchard floor is first rolled to make it firm and level. Following the shaking of the trees by the pneumatic shakers, the harvester picks up the prunes and by means of a conveyor carries them to the 250-gallon tank.

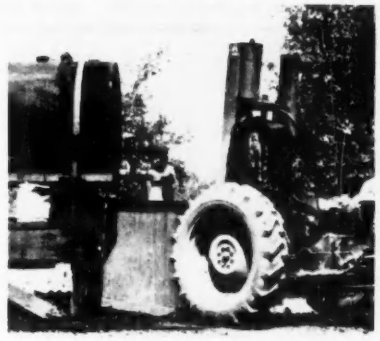
When filled, the tank is dropped off and then picked up by the one-ton capacity fork-lift for transporting to the dehydrator where it is side dumped. Or the tank can be transported by the truck, then dropped off and dumped with a chain hoist at the washer.

This method of harvesting is particularly advantageous for the grower who operates his own dehydrator. If the fruit is taken to a commercial dehydrator special advance arrangement must be made as the fruit should not be allowed to stand in the tubs of water or in wet boxes in case they are transferred.

(Continued on page 32-D)

Above—Pat Elersbee moves a lever on trailer to drop off full tank of prunes.

Below—Tank is backed up by tractor with fork-lift, for fresh supply of water.



What effect will mechanical harvesting have on the fruit industry? For Don DuVander of Windsor, Calif., mechanical harvesting of French prunes will be largely a "family" deal next season. Dad is on the pick-up machine with son Teddy on the tractor which carries the compressor for operating the two shakers handled by daughters Marilyn and Georgia. Son Jim is on the fork-lift tractor ready to carry the prunes in the 250-gallon tank to the washer.—*R. R. Parks.*

GROWERS AND MANUFACTURERS DEMONSTRATE NEW ORCHARD MACHINERY

THE recent Lake County orchard machinery demonstration at Kelseyville, Calif., showed how some growers have taken matters into their own hands by inventing machinery and gadgets to lighten the labor load.

County Advisor Smith with the help of R. R. Parks, University of California agricultural engineer, invited 30 manufacturers of harvesters, shakers, knockers, etc., to demonstrate their equipment, and a special invitation was sent to growers and shop mechanics who have machines for tree fruit or nut harvesting.

Here are some of the companies, all located in California, that demonstrated their machines:

Nut and fruit harvesters: Ramacher Co., Linden; Benner-Nawman Co., Oakland; and A. D. Goodwin & Son, Manteca.

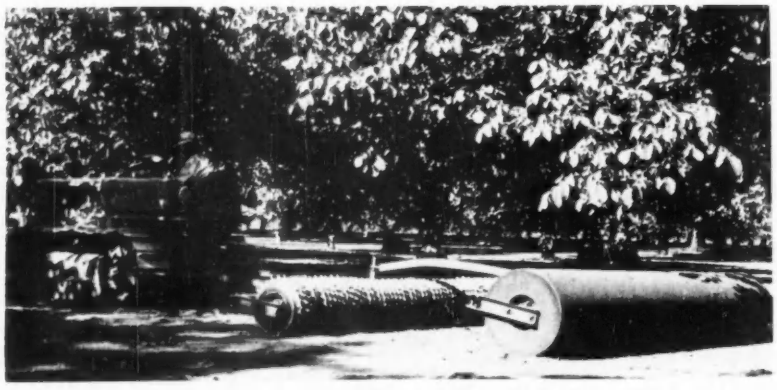
Shakers and knockers: Jack Spinelli, Ukiah; Abercrombie, Kelseyville; Best Welding Works, Modesto; and King Manufacturing Co., Woodland.

Orchard fork-lift: Blackwelder Manufacturing Co., Rio Vista.

Low-bed trailer: Ross Benson, Kelseyville.

Side rake, nut washer, prune picker: A. D. Goodwin & Son, Manteca.

There is no doubt but that machines to cut costs and keep the grower in business are being developed. For growers who have the proper attitude for machine farming, success is close at hand. Rolling the orchard ground before prunes, almonds, and walnuts are shaken or knocked off the trees is all-important.



Rolling the orchard "floor" before shaking and knocking fruits and nuts is an important operation when using the new "pickup" harvesters. Here a flexible pulverizer with triple roller behind it breaks up clods of dirt and firms and levels the ground.

MACHINE HARVESTING

(*Continued from page 32-C*)

Very few French prunes are damaged in going through the pickup machine. On the other hand, the larger Imperial prune is not suitable for harvesting in this manner, in fact, it is difficult to handle even by hand without excessive bleeding on the trays.

There is a general feeling that mechanical handling of French prunes will improve the quality of the dried product because of the shorter time that elapses between harvesting and getting the fruit to the dehydrator. Furthermore, the water in which the prunes are transported seemingly has a cooling and firming effect on the fruit. THE END

YOUR LATE WINTER WEATHER

Warmer than normal conditions are expected

By IRVING P. KRICK

This is the first of four seasonal forecasts prepared especially for readers of AMERICAN FRUIT GROWER by Dr. Irving P. Krick, pioneer long-range weather forecaster, who developed the "air mass" or three dimensional method of weather forecasting. Dr. Krick was head of the meteorology department at the California Institute of Technology for 15 years, and for the past several years has been conducting a weather forecasting service. His forecasts have proved to be strikingly accurate. The next forecast, covering the spring months of March, April, and May, will appear in the March issue.

THE time-worn phrase, "records are made to be broken," is certainly well known to the majority of sportsmen, but it is equally familiar to weathermen the world over. During the past year records of snowfall, rain, and temperature have been replaced with new figures as air masses met, combated, withdrew, and met again.

In late November the Pacific Northwest was passing through an abnormal phase of weather sequences which was causing the water levels of lakes and reservoirs to approach near-record and record lows. Meanwhile, November rains and snows drenched California to the south.

In January, the average or normal precipitation figures for California, Oregon, and Washington are at or near the peak of the annual rainfall swing, with some localities starting to experience the long drop in monthly rainfall amounts toward the dry summer season.

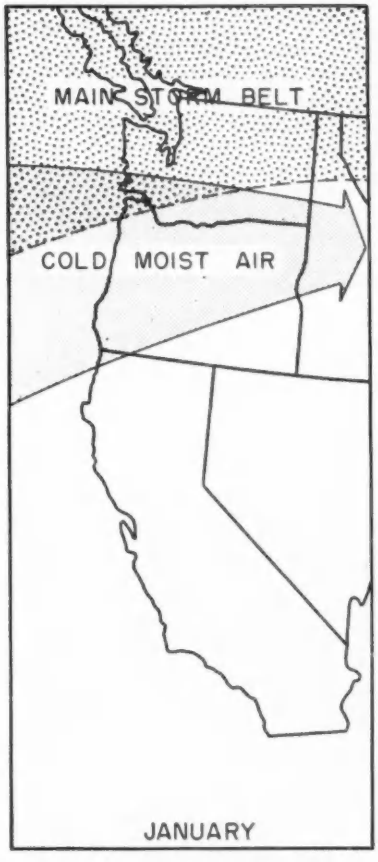


Figure 1—Storm belts and dominant air currents, long term average.

During January, 1953, the general weather regime is expected to be somewhat drier than usual. This situation is in prospect due to current indications that the main storm belt will be shifted somewhat farther to the north of its average January position (Figure 1). In conjunction with this northward displacement, relatively warm air should dominate the weather in the Pacific Coast states, producing January temperature averages above the long-time average. Only in Washington are temperatures expected to be colder than usual.

Warmer-than-normal temperatures are in prospect during February, 1953, in all three states. As is shown in Figure 2, the normal weather picture in February calls for the main storm belt to proceed southeastward from the Washington and northern Oregon coast through the southern Idaho border areas.

However, once again current tendencies point to a displacement of the storm tracks, this time slightly to the south. This deviation from normal should result in average to better-than-average rainfall in California with the Pacific Northwest remaining drier than usual.

In comparing the prospective January and February, 1953, weather with the observed weather during the same two months last year, a more favorable situation is anticipated. Somewhat-warmer-than-average temperatures are likely to prevail. Periods of open weather should permit field and farm work to progress satisfactorily.

The possibility of significant rainfall amounts in February will be favorable for adding to the soil-moisture reserves in the dry-farmed areas of California. However, appropriate precautionary measures for frost-sensitive crops should be taken during the winter's cold spells, particularly in advance of each major cold outbreak. THE END

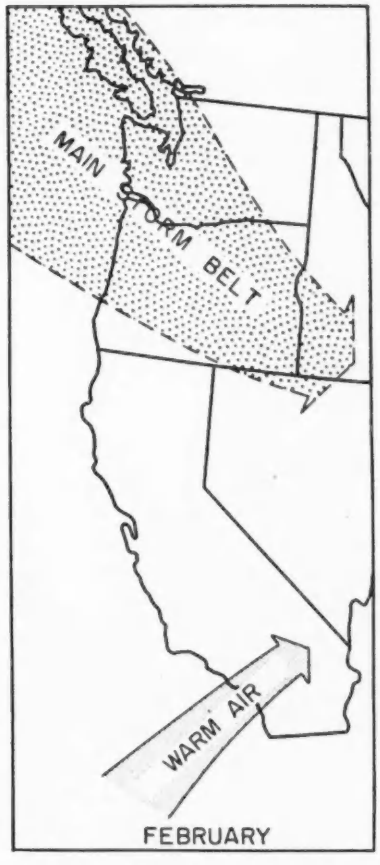


Figure 2—Storm belts and dominant air currents, long term average.

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Register of New Fruit and Nut Varieties, 1920-1950

By Reid M. Brooks and H. P. Olmo

Briefly describes 1,106 varieties originating in North America and introduced commercially during the last 30 years. Variety name with synonyms, originator's name and address, date of commercial introduction, plant patent number, parentage, and most valuable characteristics of the variety are included.

206 pages $3.00

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American Fruit Grower
Willoughby, Ohio

SUCCESS IN ORCHARDING

By RORY COLLINS

Here is a stimulating message by a grower old in experience but still young in years who has had phenomenal success in the growing of fruit.—Ed.

IT IS my sincere hope that this brief account of our fruit growing experience will prove interesting and helpful to young people who are thinking of going into orcharding as a career as well as to established fruit growers.

Forty-two years ago Sally and I moved into a tent on 18½ acres of big timber and stumps in the Hood River Valley of Oregon. We paid down our last $100, and we had no source of income.

Youth, enthusiasm, and health were our stock in trade. In those early years we took part in building up this section of the country, in getting schools, good roads, electricity, telephones, glacier water piped into our homes, and in forming our successful co-operative fruit marketing organization, the Apple Growers Association.

In selecting our land, we gave first consideration to good soil and air drainage. These factors have been of major importance, but by no means the whole story. A lot of hard work, determination, and self-denial went into our ranch.

We cleared the land gradually and planted an orchard according to the then known practices, with due consideration to varieties and marketing. So we planted pears — Bartlett and Bosc.

I followed the usual orchard practices of clean tillage until 1930. Those were tough times for all fruit growers and many lost their ranches because of low returns.

I decided at that time to make a change in order to cut costs and to do away with some of the practices which I thought were wrong anyway. I stopped all discing or cultivating. I grew heavy cover crops, fertilized more extensively, and irrigated oftener to take care of the needs of both trees and cover crop.

I consider a cover crop something to love and encourage. In return for your love it will build up humus, protect the soil against erosion and evaporation, and make a home for millions of soil bacteria to feed the trees.

I have a mulch about a foot deep of compost-like humus, soft and spongy, just as nature builds up in the woods when left undisturbed.

In return nature has been kind to us by producing over 1,000 bushels of pears per acre per year for over 20 years.

My idea from the start was to build up and maintain soil fertility by good soil conservation methods, continuous cover crops, the addition of stable manure when I could get it, many tons of sawdust supplemented with nitrate, and to work rather than interfere with nature.

I use 1,000 pounds of cyanamid per acre every year, also 600 pounds of superphosphate every other year.

I have a love of and an appreciation for the soil, our Mother Earth.

I intend to leave it in better condition for posterity.

TREND OF APPLE VARIETIES IN WASHINGTON

By F. L. OVERLEY

WHEN I. A. Van Valkenburgh moved to Wenatchee, Wash., from New York in 1909 and purchased a 12-acre orchard, he found he had acquired many varieties of apples. The orchard had been planted about six years and contained 30 varieties of apples, four varieties of cherries, eight or 10 varieties of peaches, three varieties of pears, and several varieties of plums.

Today, it is a different story. Only a few of the old varieties have stood the test of years and are still being grown commercially, along with new varieties and their red strains.

North central Washington has grown and shipped fruit out of the district for 50 years. The following table shows production figures for 10-year periods from 1902 to 1942 as well as those for 1950, the third largest crop produced in the area, and 1951, a short crop year due to extreme weather conditions.

Carloads of apples averaging 700 to 800 boxes per car packed and shipped out of the Wenatchee Okanogan district together with the number of cars sent to the cannery and the total approximate production for the district.

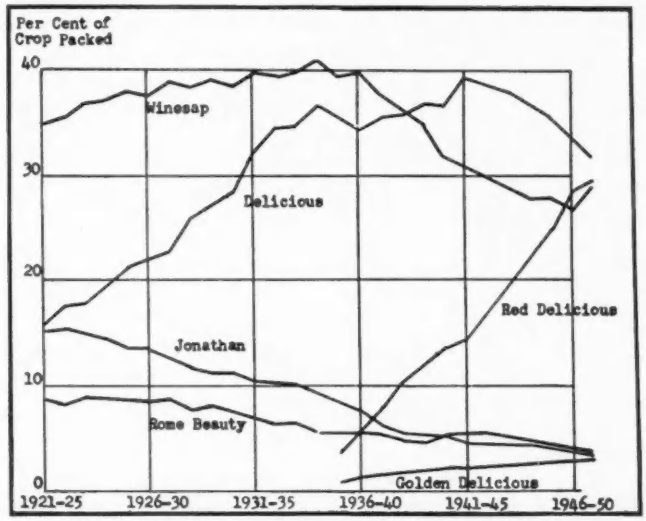
Year	Packed Fruit Carloads	Cannery Fruit Carloads	Total Production Carloads
1902			2
1912			3,990
1922	13,845	292	14,137
1932	17,595	674	18,269
1942	16,136	304	16,440
1950	21,271	1,354	22,625
1951	11,846	515	12,361

Peak of production was in 1930 when 24,386 cars of apples were produced, of which 23,486 cars went to market and 900 to the cannery. In 1929 the greatest amount of apples went to the cannery—a total of 1,429 cars. Production in 1929 was 19,155 cars.

Variation in production has occurred from year to year and was generally due to removal of nonprofitable varieties, insects, diseases, economic conditions during the '30s, winter injury to trees, and late spring frosts. Older trees were replaced and new plantings were made of the new varieties and the red strains of the better varieties that stood the test of time.

Today, Delicious, Red Delicious, Winesap, Golden Delicious, Jonathan, and Rome Beauty are the principal varieties grown, with production of Romes and Jonathans gradually decreasing. Spitzenburg, Stayman, Winter Banana, White Winter Pearmain, Arkansas Black, and McIntosh are still being grown in scattered locations but the production of these varieties does not comprise more than one per cent of the total apple crop.

The accompanying chart shows the rise and fall in production of the six major varieties of apples being grown in the area as indicated by the five-year average percentage of the full crop of packed apples for the fresh fruit market from 1921-25 to 1947-51 inclusive.



Production of six major varieties of apples in North Central Washington, 1921-1950, based on five-year average percentage of total crop of packed apples for the fresh fruit market.

As shown by the chart, the regular or common Delicious increased in production on the five-year average basis from 15.8 per cent of total packed crop in 1921 to 39 per cent in 1941-45. Since that time the percentage has gradually decreased to 31 per cent in 1947-51.

This reduction in the standard Delicious is the result of increased planting and production of such red strains as Starking, Richared, and Shotwell. In the chart these red strains are grouped together as Red Delicious and the first segregated shipping record is for the five-year average for 1935-39 with a production of 3.6 per cent of the total crop.

The percentage of production of the red strains has been steadily increasing and the 1947-51 five-year average production totaled 27.4 per cent of the total crop. Practically all plantings and replantings of Delicious are now of the red strains.

Winesap, together with some of the improved red strains, continues to be one of the leading varieties

(*Continued on page* 32-H)

The author, F. L. OVERLEY, is horticulturist emeritus of the Tree Fruit Experiment Station at Wenatchee, Wash.

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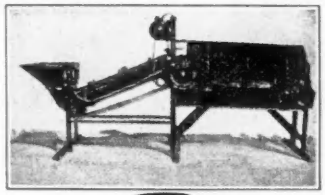
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APPLE VARIETIES

(*Continued from page 32-G*)

produced with not too great a variation from 1921-25 to 1947-51. However, the reduction from 1936-40 to date is due to the increased plantings of Delicious. Jonathan was the third major variety grown until Red Delicious started to produce. Some new plantings of the red strains are being made but in many instances they are being planted for pollinizers.

Golden Delicious a Good Pollinizer

Rome Beauty is not declining as rapidly as Jonathan and some new plantings are being made of the red strains. Golden Delicious is a relatively new variety and is not rapidly gaining in per cent of production, however, new plantings are being made. Golden Delicious is recognized as a good pollinizer for Winesap and Delicious. It responds well to fruit thinning sprays and should show an increase in percentage production at the expense of Jonathan and Rome.

Several other varieties are still being produced and shipped in carload lots. Yellow Newtown is grown more heavily in the Yakima than in the Wenatchee area. In the Wenatchee area the five-year average per cent of the crop in 1921-25 was 1.3 per cent and in 1942-46 it was only 0.5 per cent. Spitzenburg in 1921-25 was 7.0 per cent while in 1941-45 it was only 0.2 per cent. Stayman in 1921-25 was 7.5 per cent while in 1943-47 it was only 1.5 per cent.

Winter Banana has almost completely dropped out of production, hardly enough being produced to make pies for the local people. In 1921-25 it represented 1.6 per cent of production; in 1935-39 it dropped to 0.5 per cent. White Winter Pearmain dropped from 1.4 per cent in 1921-25 to 0.1 per cent in 1941-45. Arkansas Black, never much of a factor, was 0.9 per cent in 1921-25 and 0.2 in 1940-44. Most of the trees were grafted over to Delicious.

The miscellaneous production for the district which includes all varieties not listed ranges from 6.1 per cent of the total production in 1921-25 to 1.2 per cent in 1947-51.

The trend of fruit production in the Wenatchee-Okanogan area shows the gradual disappearance of many varieties of apples, and the present-day grower considers only strains of Red Delicious, Red Winesap, Red Jonathan, Red Rome Beauty, and Golden Delicious for his commercial planting. THE END

ECONOMIC OUTLOOK FOR 1953

High purchasing power and high costs plus keener competition set the pattern for the year ahead

By LARSTON D. FARRAR
Washington Correspondent, American Fruit Grower

THE economic outlook for citrus and deciduous fruit growers is particularly bright for 1953, according to indications apparent on the national scene. Overall, it can be predicted confidently that 1953 will be a good year for the fruit industry because it is likely to be a good year for all industry.

As the nation came into a New Year, there was no one who could dispute that business was operating on the highest economic plateau in our national history. Employment stood at better than 62½ million in mid-December. This is not counting the millions of servicemen in uniform drawing regular allotments.

Wage payments are at the highest level in history. The average factory worker, according to the U.S. Bureau of Labor Statistics, now is getting a little more than $70 a week. When you consider that this figure has gone up regularly for the past several years, you will understand why, even after taxes, people have more money than ever before.

The amount of money in circulation today is at the highest rate in history, even when the free-flowing money days of World War II are taken into account. There now is some $30 billion in currency in circulation, according to the Federal Reserve Board. The average citizen now is carrying 10- and 20-dollar bills, instead of ones and fives, according to statistics.

The personal income of all Americans in December, on an annual rate, was close to $275 billion. This means that, even after taxes, con-

(*Continued on page 60*)

With money in his pocket the consumer becomes more discriminating as to quality.

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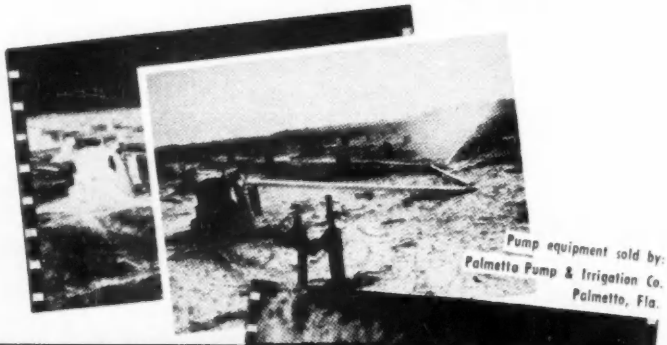

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CALENDAR OF COMING MEETINGS AND EXHIBITS

Jan. 5-6—Maryland State Horticultural Society 55th annual meeting, Hotel Alexander, Hagerstown.—A. F. Vierheller, Sec'y, College Park.

Jan. 5-6—Missouri State Horticultural Society annual meeting, Daniel Boone Hotel, Columbia.—W. R. Martin, Jr., Sec'y, Columbia.

Jan. 6-8—Massachusetts Fruit Growers Association annual meeting, Worcester.—A. P. French, Sec'y, Pomology Dept., University of Massachusetts, Amherst.

Jan. 6-8—Western Washington Horticultural Association annual meeting, Fruitland Grange Hall, Puyallup.—C. D. Schwartze, Sec'y, Puyallup.

Jan. 8-9—Kentucky State Horticultural Society annual meeting, YMCA Bldg., Louisville.—W. W. Magill, Sec'y, Lexington.

Jan. 9-10—Western Colorado Horticultural Society annual convention, Grand Junction.—Don Marcue, Sec'y, Grand Junction.

Jan. 13-14—Maine State Pomological Society annual meeting, Lewiston Armory, Lewiston.—Frank McDonald, Sec'y, Monmouth.

Jan. 14-16—Indiana Horticultural Society annual meeting, Murat Temple, Indianapolis.—R. L. Klackle, Sec'y, Lafayette.

Jan. 14-16—New York State Horticultural Society annual meeting, Edgerton Park, Rochester.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 19-21—Virginia State Horticultural Society 57th annual meeting, Hotel Roanoke, Roanoke.—John F. Watson, Sec'y, Staunton.

Jan. 21-23—New York State Horticultural Society eastern meeting, State Armory, Kingston.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 26-28—Pennsylvania State Horticultural Association annual meeting, Yorktowne Hotel, York.—John U. Ruef, Sec'y, State College.

Jan. 26-30—United Fresh Fruit & Vegetable Association 49th annual convention, Los Angeles, Calif.—Convention Headquarters, 704 Market Court, Los Angeles 21.

Jan. 27-29—New Hampshire State Horticultural Society annual meeting, Durham.—D. R. Batchelder, Sec'y, Wilton.

Feb. 4-6—Ohio State Horticultural Society annual meeting, Deshler-Wallick Hotel, Columbus.—C. W. Ellenwood, Sec'y, Wooster.

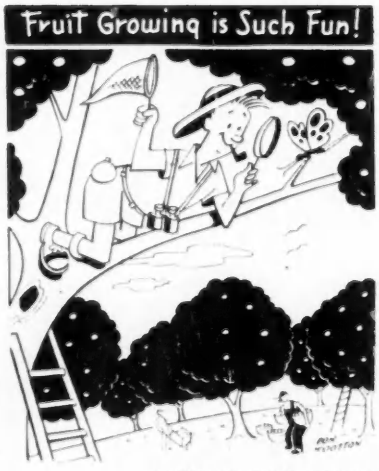
Feb. 5—Vermont State Horticultural Society half-day small fruit and vegetable meeting in conjunction with Vermont Farm Products Show. Annual society meeting to be held first week of April.—C. Lyman Calahan, Ext. Hort., Burlington.

Feb. 5-6—Idaho State Horticultural Society annual meeting, Hotel Boise, Boise.—Anton S. Horn, Sec'y, Boise.

Feb. 4-6—West Virginia Horticultural Society annual meeting, Martinsburg.—Carroll R. Miller, Sec'y, Martinsburg.

Feb. 16-18—National Peach Council annual meeting, Spartanburg, S.C. — M. J. Dorsey, Sec'y, 1502 S. Lincoln, Urbana, Ill.

Aug. 31-Sept. 2—Northern Nut Growers Association annual meeting and tour, Rochester, N.Y.—George Salzer, Vice-Pres., 169 Garford Road, Rochester, N.Y.



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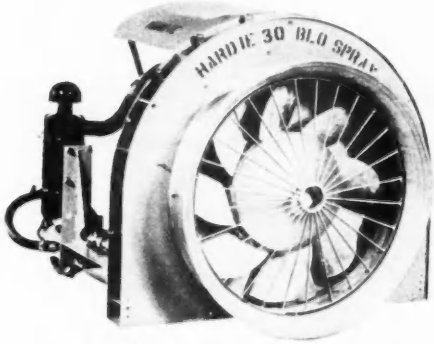
Equipped with a Hardie pump delivering 10 gpm at 400 psi, the Air Prince provides the ample high pressure so necessary to atomize concentrate and semi-concentrate sprays. The Hardie axial-combination type fan is mounted directly on the shaft of the 31 HP engine, eliminating clutch and belt or chain drive. One-man-operated double discharge controls permit spraying from one or both sides, as desired. The extra high air velocity—140 MPH—swirls the leaves and assures complete coverage under all conditions. Hose connection for hand gun operation is provided.



Hardie Blo-Spray is the completely equipped, fully perfected unit for converting a high pressure sprayer to an air blast sprayer. It comes complete, ready to operate, with starter, generator, Hardie Wun-pull valves and complete disc equipment for concentrate and semi-concentrate sprays. Two sizes.

Look to **HARDIE** • *Use the Coupon.*

- Air Blast Sprayers in many models.
- High Pressure Sprayers in eleven pump sizes—3 gpm to 80 gpm.
- Row Crop Sprayers and Booms.
- Row Crop Dusters of new, advanced design.
- General utility sprayers for weed, brush and animal pest control.

HARDIE
PEST CONTROL EQUIPMENT
• SOLD AND SERVICED ALL OVER THE WORLD

The Hardie Manufacturing Company,
Hudson, Michigan.
3825 Santa Fe Ave., Los Angeles 58, California
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Please send catalog.

Name_____
Address_____
City_____ State_____
I am especially interested in_____

Use the best

...USE

CRAG

TRADE-MARK

Fruit Fungicide 341

READ WHAT TOM PRICE
OF NEWARK, OHIO, HAS TO SAY:

"I have been so impressed with CRAG Fruit Fungicide 341 that I wish to let you know how it worked for me.

"We used CRAG 341 in a block of mixed cherries and apples. The apples are mostly McIntosh, Cortland, and some Wealthy. It is hard to find any sign of scab on the trees sprayed with CRAG 341. But in the rest of the orchard, which was sprayed with sulfur, scab can be found easily. The cherries in the block sprayed with CRAG 341 have the best foliage they have had for years.

"The timing of the sprays in the cherry and apple block sprayed with CRAG 341 was not as good as it was in the sulfur sprayed trees, yet the CRAG 341 block is by all odds the cleanest. It looks like CRAG 341 will have a considerably larger part in our spray program in the future."

WHY NOT USE CRAG 341

IN YOUR SPRAY PROGRAM?

It gives you excellent control of both apple scab and cherry leaf spot and suppression of European red mites. It is easy to use in either dilute or concentrate sprays, and is compatible with most insecticides. CRAG 341 sticks exceptionally well—even through prolonged rains. Trees protected with CRAG 341 produce higher colored fruit with an excellent finish. If you want the best, use CRAG 341.

Use CRAG HERBICIDE 1...

for preventing weeds in strawberries, asparagus, corn, and gladiolus. It can give you economical, long-lasting control of both grass and broadleaf weeds. There's little or no drift hazard with CRAG Herbicide 1.

CRAG Agricultural Chemicals are distributed in the United States and Canada by leading agricultural chemical suppliers.

PROTECT FOR PROFIT
with

CRAG
Trade-Mark
AGRICULTURAL CHEMICALS

CARBIDE AND CARBON CHEMICALS COMPANY

A Division of
Union Carbide and Carbon Corporation
30 East 42nd Street UCC New York 17, N. Y.

The word "CRAG" is a registered trade-mark of Union Carbide and Carbon Corporation.

TRENDS IN EUROPEAN FRUIT GROWING

By H. B. TUKEY

IN 1950, 21.5 million tons of grapes were made into 3,680 million gallons of wine in Europe. In this, France led with 8.6 million tons and 1,542 million gallons, followed by Italy with 5.6 million tons and 898 million gallons, and Spain with 3.0 million tons and 475 million gallons. For comparison, North America used 1.3 million tons the same year for the manufacture of approximately 400 million gallons of wine.

This extensive use of fruits for juice purposes is one of the features of the fruit industry of Europe. Look at the apple and the pear. In 1951, France produced 216 million bushels of apples for cider, over twice the entire United States short crop of 1952 of 98 million bushels. As for the pear, 33.7 million bushels of French pears went into juice in 1951, or slightly more than the entire U.S. crop of 32.6 million bushels.

If one wishes choice apple cider, he can do no better than to try the freshly pasteurized, carbonated product of Switzerland, pressed and filtered in spotless surroundings from a blend of varieties which includes cider sorts with high sugar content and characteristic flavor.

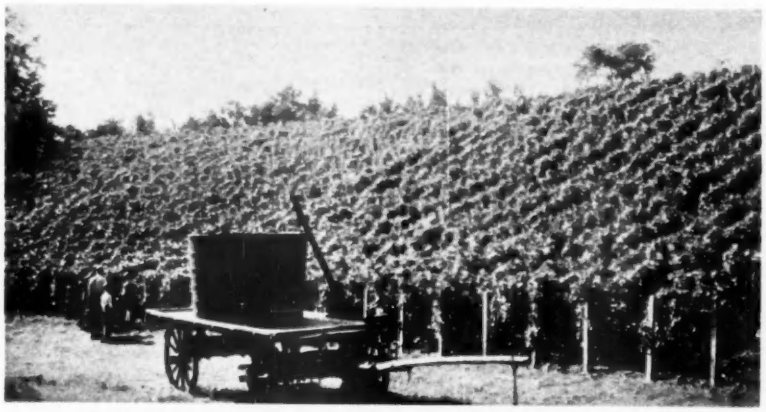
The trend is for each country to become as self-sufficient as possible, and one need but look at a few figures to prove the point. In the Netherlands, apple production has risen from 12.9 million bushels in 1935-39 to 17.6 million bushels in 1952, and pears have increased from 1.5 to 9.2 million bushels. In England, apple production was 13.9 million bushels in 1934-38, and 27.0 million in 1944; while pear production nearly doubled from 1.0 to 1.9 million during the same period.

Italy, not to be outdone, increased the number of apple trees in the Ferrara region on the Adriatic Sea between Venice and Bologne from 674,000 in 1938 to 2,400,000 in 1947. Apple production has trebled since 1935-39 (12.9 to 37.8 million bushels) and pear production has doubled (8.4 to 19.6 million). Taking Europe as a whole, the apple crop is 50 per cent greater than 15 years ago (321 to 447 million bushels), and the pear crop is nearly 100 per cent greater (83 to 151 million bushels).

Peach production likewise shows an increase from a pre-war figure of

(*Continued on page 38*)

Dr. H. B. Tukey, who is head of the department of horticulture at Michigan State College and associate editor of AMERICAN FRUIT GROWER, attended the recent meeting of the International Horticultural Congress held in London and obtained first-hand information on fruit growing conditions in England and on the continent. His article contains enlightening information about the extent to which the European fruit growing industry has developed and expanded since World War II as well as facts about the trend of horticultural developments in Europe.—*Ed.*



In Europe prodigious quantities of fruit go into juice, including apples, pears, and the grapes from this vineyard in Switzerland.

you can get
CRAG Fruit Fungicide 341

FROM THESE SUPPLIERS:

Auburn Orchards Farm Supply, Utica, Mich.
W. H. Barber Company, Chicago 32, Ill.
W. H. Barber Company, Minneapolis, Minn.
Bartels & Shores Chemical Co., Kansas City, Mo.
Berry Hill Orchard Company, Livermore Falls, Me.
Central Chemical Company, Hagerstown, Md.
Des Moines Drug Company, Des Moines, Ia.
The Diamond Fertilizer Company, Sandusky, O.
Evans Orchard Supply Company, Kansas City 6, Mo.
E-Z-Flo Chemical Company, Lansing 3, Mich.
Farm Bureau Services, Inc., Lansing, Mich.
Frost Insecticide Company, Arlington, Mass.
GLF Service Agencies in N. Y., N. J., and northern counties of Pa.
G. S. Robins & Company, St. Louis 2, Mo.
Grand Rapids Growers, Inc., Grand Rapids, Mich.
Great Plaines Seed Company, Sioux Falls, S. D.
Hopkins Agricultural Chemical Company, Madison, Wisc.
Janney Semple Hill Company, Minneapolis, Minn.
LaCrescent Farm & Orchard Supply, LaCrescent, Minn.
Merrimack Farmers Exchange, Concord, N. H.
Michigan Potato Growers Exchange, Cadillac, Mich.
Miller Chemical Company, Omaha, Neb.
Miller Chemical Corp., Charles Town, W. Va.
Miller Chemical & Fertilizer Corp., Baltimore 18, Md.
Miller Products Company, Portland 1, Ore.
Minnesota Farm Bureau, St. Paul, Minn.
Pennsylvania Farm Bureau Coop. Ass'n., Harrisburg, Pa.
The Rogers & Hubbard Company, Portland, Conn.
C. H. Runciman Company, Lowell, Mich.
Sodus Fruit Exchange, Sodus, Mich.
Stanley Cheever, Shelby, Mich.
Wixom Co-op, Wixom, Mich.

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GREEN CROSS INSECTICIDES,
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Producers of CRAG Agricultural Chemicals
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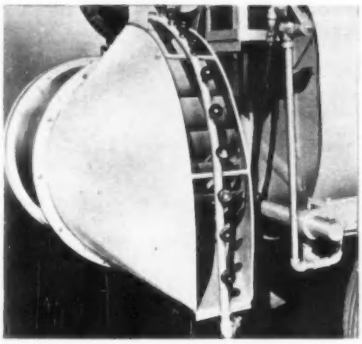
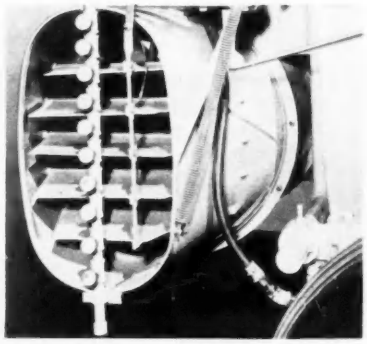


New Myers Concentrate Blower Attachment with **orchard** outlet. Easy to mount on any high pressure sprayer.



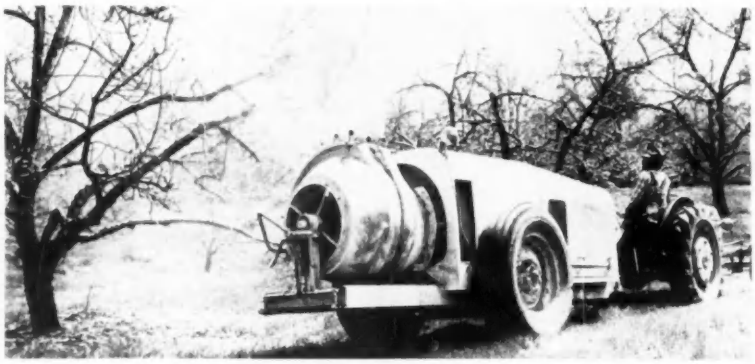
New Myers Concentrate Blower Attachment with ***field-crop*** outlet. Baffles, controlled from tractor, adjust to ground contour.

New Myers unit converts dilute sprayer to concentrate

This new concentrate blower attachment, built by Myers, brings the tremendous advantages of concentrate spraying to the owners of dilute spray rigs. Available with either the orchard spraying outlet, field-crop spraying outlet, or both, *this is one of the most sensible attachments developed in many years.*

Here are the main features that mean greater profits to growers:

- Converts your dilute sprayer to dual-purpose orchard or field-crop concentrate sprayer.
- Thoroughly covers 40 ft. swaths in field crops. Fewer tank fillings because lower gallonage of spray is required.
- Fog-like spray driven at high speed saturates spray area . . . deposits blanket of proper-size particles on leaves, twigs and fruit.
- Field-crop outlet eliminates unwieldy booms, drop pendants, long hose connections, etc., necessary in usual row-crop spraying operations.



Myers Orchard Concentrate Sprayer. Choice of the commercial orchardist because of its economical performance and complete coverage.

If you are a commercial fruit grower, the Myers Orchard Concentrate Sprayer shown above is your sprayer for greater profits. But suppose you are a "medium" or "small" operator? Or suppose you also want to spray vegetables as well as fruit? Then this new Myers concentrate attachment, with both orchard and field-crop outlet, brings you the very latest and best method of applying insecticides and fungicides, without heavy investment in completely specialized machines.

This Myers concentrate blower attachment is especially designed for the orchardist or vegetable grower who wants to enjoy the profit advantages of concentrate spraying, but whose operations are not big enough to warrant buying a specialized orchard or field concentrate sprayer. Consult your community Myers Power Sprayer dealer, or send in attached coupon.

More Buyers Buy Myers

For Greater Profits . . . with less time and labor

The F. E. Myers & Bro. Co.
293 Fourth Street, Ashland, Ohio

Please send free catalog giving details of the new Myers Concentrate blower attachment.

Name_____
Town_____ State_____
County_____ R.F.D._____

TRENDS IN EUROPE

(Continued from page 37)

19 million bushels to 27.8 million in 1952. As an indication of the cherry situation, West Germany now produces 200,000 tons, compared with 95,511 tons pre-war, and in Italy the figure has climbed from 78,131 to 135,000 tons. As for plums and prunes, Belgium and Luxemburg have nearly doubled, France has nearly trebled, Italy has increased 75 per cent, and West Germany has increased 20 per cent.

Exports Increasing

But this is not all. Exports have increased from heavily producing regions. Thus, Belgium and Luxemburg now export 1.2 million bushels of apples compared with .39 million pre-war, Denmark 1.4 and .44, Italy 7.8 and 2.4, and the Netherlands 5.6 and .5, respectively. By contrast, the U.S. exported 9.7 million bushels pre-war, and now exports 1.7 bushels.

To help in this trend towards self-sufficiency, modern methods of culture, spraying, refrigeration, and handling are coming ahead rapidly, aided by government research and excellent scientific leadership. A grower-owned co-operative packing plant within 75 miles of London handles 500,000 bushels of local production in as modern a storage and packing plant as can be found anywhere in the world. Southern France boasts 1,500 acres of modern "American" production, and other countries are following the vogue.

All of this adds up to the suggestion that America will be well advised to put major attention on developing home markets.

Environmental Problems Solved

One of the interesting features of travel is to see the ways in which each region meets the problems which confront it. Thus, in the Verona fruit area of northern Italy hail is a limiting factor, but is met successfully by a barrage of rockets exploded at heights up to 3,000 feet, thanks to Dr. Dino Rui and his colleagues.

In the lower Rhone River Valley of southern France, strong winds from the north (mistrals) cause heavy damage. In consequence, protecting hedges of pyramidal poplars and evergreens, and screens of cane and rushes become a feature of the landscape on every side.

Again, on the west side of England are soils where mineral deficiencies are severe. Apple trees planted in 1927 are still only waist high because of potash deficiency. Seeking the solution, Dr. T. Wallace,

APPLES

and his associates at the Long Ashton Research Station have won world-fame providing the answers to many nutritional disorders.

Further, in the Ferrara region of northern Italy, color is a limiting factor in fruit production. To meet this, Dr. Mario Zucchini and Dr. Nino Breviglieri have developed a system in which fruit trees are trained in V-form in long, narrow hedge-rows to provide maximum light. Since trees are inclined to be overly vigorous, a system of bending and tying-down has been devised which favors early bearing.

Virus troubles are severe in the British Isles. Accordingly, work on viruses is in a position of leadership. A new research station at Dundee, Scotland, directed by T. Swarbrick, is especially committed to this field.

The East Malling Research Station, southeast of London, now under the leadership of Dr. F. R. Tubbs, is recognized for the work of Dr. Ronald Hatton and his associates in the standardization of the Malling dwarfing rootstocks for fruit trees. Europeans contend that America is on the right track in its interest in smaller-than-standard trees, which have been so successful in Europe.

New Fruits of Quality

The breeding of improved fruits is well supported. Excellent new varieties of peaches have been developed for Italy by Dr. Alessandro Morettini of the University of Florence. Dr. M. B. Crane at the John Innes Institute near London has bred new tree and small fruits of wonderful quality and performance for England, and the Auchincruive Climax strawberry produced by R. D. Reid, at the West of Scotland Agricultural College, is one of the great new varieties.

Finally, wherever one travels he recognizes that what is done in one country or region or individual location is the result of environment and resources — temperature, rainfall, heat, cold, drought, finances, and material support. The fruit industry and those who work in and for it are pretty much the same kind of optimistic, helpful, industrious, intelligent, kindly, generous, and hospitable folks one place as another, and always a delight both to visit and to entertain. THE END

An index of articles which appeared in AMERICAN FRUIT GROWER in 1952 is available. Simply send a post card request for your copy to AMERICAN FRUIT GROWER, Willoughby, Ohio. A binder for your 1952 copies will be sent upon receipt of your request and a dollar bill.

Here's the *Right Product* for *Every Pest Problem*

Whatever pest control problems this coming season may bring . . . there's the right Orchard Brand product to do the job for you.

That's because General Chemical's Orchard Brand spray materials are produced in close cooperation with America's commercial growers. Developed out of careful research both in the laboratory and in the field, and formulated to meet growers' special needs, each product is built to do a specific pest control job.

So remember—no matter what pest control problems you may face—you can always get the *right* product for your needs when you buy Orchard Brand spray materials.

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

*Reg. U. S. Pat. Off.
†G. C. Trade mark

IT'S NEW-IT'S NEWS

When you buy Niagara you buy protection

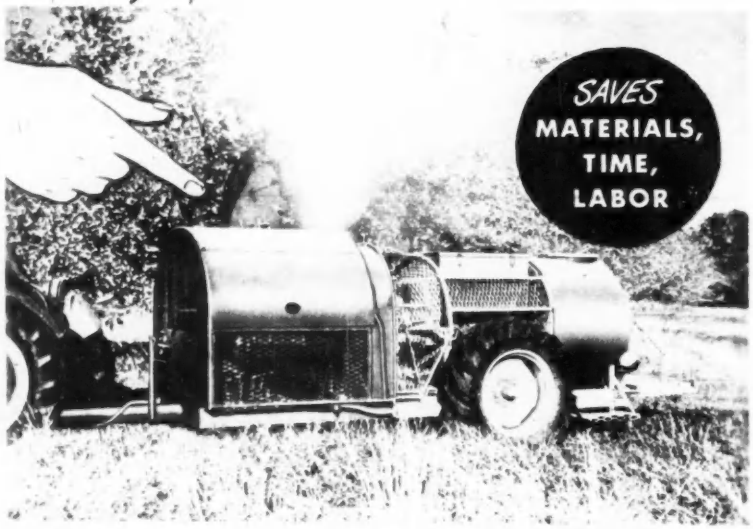
THE POWERFUL **Niagara**

LIQUI-DUSTER

ONE MAN OPERATED AND CONTROLLED

Here's the finest piece of orchard protecting equipment you can own. With it you can dust in wet weather or liqui-dust during dry seasons for maximum sticking and complete control. The large dust discharge area along with a powerful air blast assures even distribution. This means no blotching on the outer areas of trees; complete, even coverage with less material.

This new Niagara Liqui-Duster takes a negligible amount of water compared to a big sprayer and weighs considerably less. It is easy to maneuver and can be finger tip controlled by one man from the seat of a medium duty tractor. Extensive field tests show that up to 50 acres of orchards can be covered in half a day.



Write for Catalog—

Niagara CHEMICAL DIVISION

FOOD MACHINERY AND CHEMICAL CORPORATION

Middleport, N. Y. Richmond, Calif., Jacksonville, Fla., Tampa, Fla., Pompano, Fla., New Orleans, La., Ayer, Mass., Greenville, Miss., Harlingen, Tex., Pecos, Tex., Yakima, Wash. **Subsidiary,** Pine Bluff Chemical Co., Pine Bluff, Ark. **Canadian Associate:** NIAGARA BRAND SPRAY CO., LTD., Burlington, Ontario.

When you buy Niagara you buy protection

fmc

APPLES

(*Continued from page 13*)

the processor sell his finished product in volume at a price that will enable him to reflect 'fresh' returns to the producer in a year like 1952?" or, "What is the highest price at which sauce or slices will sell in volume?" These questions probably never will be answered completely and satisfactorily. Nevertheless, the present season presents a much more optimistic picture than for several years.

Shipments of canned sauce and slices from processors to the channels of trade were excellent in August and September. In September, 1952, sauce shipments were fully 60 per cent larger than a year ago and at prices 25 to 60 per cent greater than in September, 1951. Slices present a somewhat similar picture.

This movement may only be filling the pipe lines of distribution; however, if sauce and slices can be sold at the September, 1952, volume and prices, it should give the entire industry—producer, processor, and the

ALL METHODS OF SALE—By State

Season Average Price Per Bushel Received by Grower

	1951	1952*		1951	1952*
Maine	1.90	3.20	Kans.	2.10	3.50
N.H.	1.90	3.30	Dela.	1.50	2.35
Vt.	1.90	3.30	Md.	1.60	2.20
Mass.	1.80	3.20	Va.	1.25	1.90
R.I.	1.85	3.40	W.Va.	1.40	2.00
Conn.	1.90	3.50	N.C.	1.75	1.90
N.Y.	1.15	2.50	Ky.	2.00	2.20
N.J.	1.80	3.05	Tenn.	1.75	2.15
Pa.	1.20	2.65	Ark.	1.60	2.60
Ohio	1.60	2.60	Mont.	2.65	2.00
Ind.	1.85	2.55	Idaho	1.35	2.50
Ill.	1.80	2.50	Colo.	1.75	2.00
Mich.	1.40	2.65	N.M.	2.25	2.50
Wisc.	1.95	3.00	Utah	1.55	2.40
Minn.	1.90	2.50	Wash.	3.05	4.00
Iowa	2.15	2.65	Ore.	2.21	2.20
Mo.	1.75	2.50	Calif.	1.33	1.25
Nebr.	1.90	3.60			

FRESH

Season Average Price Per Bushel Received by Grower

Average:	1941-50	1.94	1951	1.78
1950		1.59	1952*	2.72

CANNING & FREEZING

Season Average Price Per Ton Received by Grower

	1949	1950	1951*
New York	57.00	53.20	33.00
Pennsylvania	56.20	50.30	32.10
Maryland	58.70	54.40	31.30
Virginia	58.80	52.80	31.80
West Virginia	58.70	53.10	30.20
Michigan	58.10	46.40	34.30
Washington	18.50	50.70	36.90
Oregon	29.00	53.80	30.00
California	27.00	46.10	41.30

DRYING

California	14.60	17.50	35.40
Washington	7.80	19.10	17.30
New York	15.40	23.40	15.00
West Virginia	14.60	20.00	**

** Quantity Negligible

OTHER PROCESSING

New York	11.40	14.00	12.70
Pennsylvania	12.30	18.60	13.30
Indiana	11.30	14.90	12.60
Illinois	8.40	13.20	10.20
Michigan	11.20	18.90	15.50
Maryland	16.20	20.70	9.80
Virginia	11.50	14.90	10.00
West Virginia	21.30	16.00	10.00
Arkansas	18.50	19.80	16.00
Idaho	7.50	4.20	10.40
Washington	10.90	14.30	17.00
Oregon	17.00	13.10	14.10
California	13.80	27.10	20.80

fresh distributing trade—a tremendous lift and offer a more promising future for all concerned than has been envisioned by many in the industry in the recent "apple depression years."

Fresh Domestic Movement

As every apple grower knows, good movement before December 1 is a "must." The consumer must be eating apples right from the beginning of the season, and he must come back for more. Varieties must be moved in season. The big question in recent years has been to obtain the necessary movement and at the same time show a profit. In certain recent large crop years, good movement has been attained, but usually at sacrifice returns to the producer. The financial status of many growers to some extent has forced sales and inhibited any orderly merchandising program. Apples in storage do not improve in quality or condition and must move while still in good condition or sustain a loss later in the season due to poor quality and appearance.

Nearly one-half the total fresh domestic tonnage moves before December 1. It is of paramount concern to all in the industry and especially to the growers, that this tonnage realize a profit. Of course, the weighted average returns for the season tell the story of profit and loss, but if tonnage that is moved prior to December 1 is sold at below cost of production it is difficult to show black ink for the season.

This season with the crop ideally located—about 60 per cent in the East and Central states and about 40 per cent in the West—it appeared in mid-November that an orderly marketing program was being followed in nearly all districts.

In October, 1952, the International Apple Association indicated that *if* 30 million bushels moved fresh domestically prior to December 1, the holdings in storage on that date might approach 34.5 million bushels. The November 1, 1952, storage holdings as reported by the IAA showed 38.4 million bushels. Based on past experience, the apparent normal decline from November 1 to December 1 is about 4 million bushels.

In September, 1952, the IAA cautioned that "AN OVER OPTIMISTIC AND COMPLACENT INDUSTRY can be dangerous in any year. It is a year when CAREFUL CONFIDENCE AND ENTHUSIASM appear to be essential to the successful merchandising of this relatively short crop." Judging from the indexes available the industry has conducted its business along these lines.

(*Continued on page 42*)

Now—one man from tractor seat does work of whole crew

—Says Mr. Charles Atwood

ATWOOD ORCHARDS

Route 1
Wenatchee, Washington
November 15, 1952

Hurst Industries
San Jose, California

Gentlemen:

Our Hurst sprayer, Model 54, was purchased from H. R. Spinner's early last spring. It was put to work immediately applying a pre-bloom spray on our sixty-five acres. Following in quick succession were sprays for chemical thinning, mildew, codling moth, cherry fruit fly, mites, aphis, and finally a pre-harvest hormone on pears and apples. All these applications proved very satisfactory.

We found the Hurst 54 to be ideal for all our needs. Light enough to pull with a small wheel tractor. Large enough in tank, air and pump capacity to use with bulk sprays so necessary for chemical thinning or 24D hormone. It is especially rapid and economical when used on applications adapted to semi-concentrate mixtures.

We like the sprayer's ease of operation, low fuel consumption, simple upkeep, and Aqua-Jet nozzle pattern which can be so quickly changed to suit the type and size of trees.

We appreciate the eagerness of the dealer and factory representatives to aid us in getting the best performance from our machine.

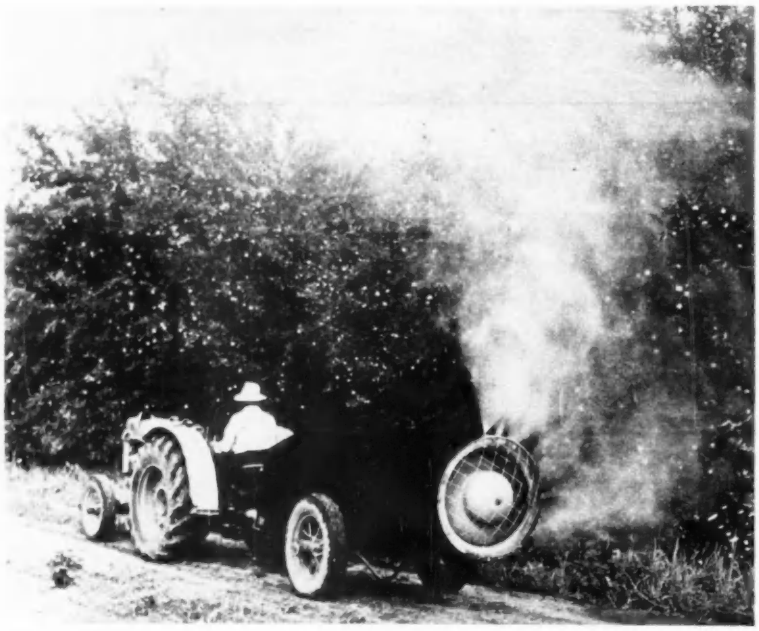
Needless to say the greatest satisfaction comes in doing from the tractor seat a job that used to take the hard labor of a crew of nine men.

Sincerely
Atwood Orchards
by Chuck Atwood

This letter tells its own story. May we just add this suggestion: SEE YOUR AQUA-JET SPRAYER DEALER *NOW*—FOR BETTER SPRAYING FOR YEARS TO COME.

Spraying apple orchard with parthion at Atwood Orchards, Wenatchee, Washington

HURST INDUSTRIES, INC.
SAN JOSE, CALIFORNIA
SUBSIDIARY OF CARDOX CORPORATION
Eastern Distributor: Newton Chemical & Supply Co., Bridgeville, Delaware



HOW Clarence Stover modernized an old sprayer with a John BEAN *Speedaire*

...to get CLOSER CONTROL with 30% LESS SPRAY MATERIAL

Clarence A. Stover and son, Lawrence, owners and operators of a 45 acre orchard near Berrien Springs, Michigan, converted their 12-year old John Bean Royal 20 sprayer into a modern air type sprayer through the addition of a John Bean Speedaire. They find that material savings of 30% resulted for all fruits (pears, cherries, prunes, peaches) except apples. Apple spray materials savings were 20%. Additional advantages were: much better control than with hand spraying, in fact they stopped spraying apples on July 1 because control was so good at that time. The whole spraying operation is much easier since one man can now handle the job alone.

SEE YOUR JOHN BEAN DEALER TO LEARN HOW MUCH MORE A SPEEDAIRE CAN MEAN TO YOUR SPRAYING OPERATIONS

No sprayer has ever outperformed the SPEED SPRAYER

That's right! The most economical sprayer in the land is the John Bean Speed Sprayer. For the really big spraying jobs it can't be beat. Time after time the Speed Sprayer has proved its economy, with better coverage and better control of *all* pests.

Write today for a John Bean Catalog. In it you will find the sprayer to fit your needs exactly. Dept. AF-1.

fmc FOOD MACHINERY AND CHEMICAL CORPORATION

John BEAN LANSING 4, MICHIGAN SAN JOSE, CALIFORNIA

Division of Food Machinery and Chemical Corporation

APPLES

(*Continued from page 41*)

Who can foresee what may happen? However, based on the November 1 storage holdings it would appear that about 34.5 million bushels may be in storage on December 1, 1952. This will include holdings of processors and any apples that may be exported after that date. On this basis there may be about 9.3 pounds of fruit available per capita for fresh consumption after December 1. The industry usually experiences difficulty if the per capita supply in storage on December 1 is over 11.5 pounds.

Export Possibilities

The export situation is not favorable. Dollar exchange is still the stumbling block, and in many countries the conditions are not as promising as last season. Lack of an export subsidy program further limits the possibilities. Barring the unexpected, 1.1 million bushels may be exported as compared to the 3.4 million last season.

A Year of Heavy Costs

The 1952 crop will go down in the records as one of the most expensive crops to produce, on a per bushel basis, in many years. In the East and Midwest the relatively light crop plus the heavy continuous expense of fighting scab and other diseases and insects has increased the cost per bushel to a very high level. The light crop in Washington has done the same. Harvesting costs per bushel have also been high due to high labor costs and the shorter crop.

Quality of the Crop

For the most part, the fruit in the East and Midwest that survived the ravages of weather, diseases, and insects is of good quality and color. In Maryland a new fungicide has shown promise in giving commercial scab control and the best finish in years on fruit susceptible to russet. Reports from other areas are variable on this fungicide.

In the West the heat wave in September reduced quality and color, notably on Delicious in Washington. Elsewhere (and on later varieties in Washington) the quality was good.

"Men We Never Heard From"

Reports from growers all over the East and Midwest indicate that wholesalers and retailers never before heard from have called and new contacts have been made. This presents an excellent opportunity to enlarge the marketing scope of these growers. To cement these contacts an honest pack must be forthcoming.—*Fred W. Burrows, International Apple Association.*

APRICOTS

(*Continued from page* 15)

New Developments

There have been relatively few revolutionary developments in the canned and dried apricot industry in recent years, except perhaps a marked improvement in canning equipment and machinery, and greater efficiency in the use of labor.

In the shipping industry there has been renewed interest in the development of early varieties of good shipping qualities, and much more attention to grade, size, and pack satisfactory for market. The "Brentwood" lug, 4⅝ x 12½ x 16⅛ inches, inside dimensions, is now the accepted California shipping container. It holds a net weight of fruit of from 24 to 25 pounds. Fresh apricots are usually packed in rows, sized, and "faced and filled." The popular sizes are 6-, 7-, and 8-row. Practically all fresh apricots are precooled before shipment.

Some apricots are frozen, but the tonnage is not substantial and appears to be declining. While dried apricots constitute the principal outlet for this fruit, the trend is downward. The reverse is true of apricots for canning purposes, where the proportion of the total crop so utilized has increased in recent years.

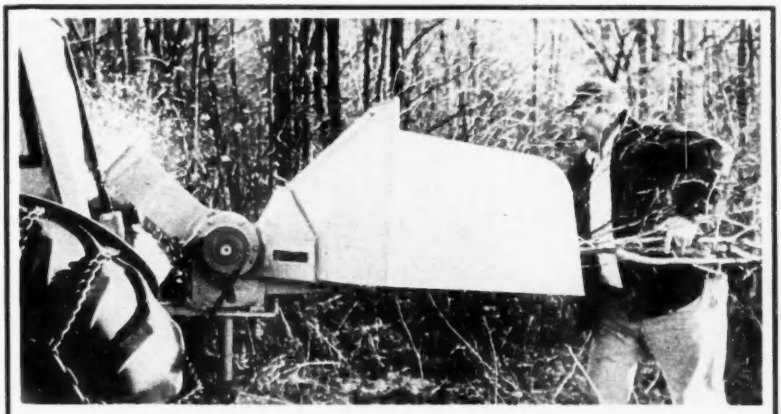
Prices

In 1951, according to the California Co-operative Crop Reporting Service, all apricots sold fresh returned to the grower an average of $129 per ton; for canning purposes $115 per ton; and dried (fresh basis) $112 per ton; or an average for all methods of sale of $116 per ton.

Government figures for 1952 are not yet available, but California canners generally paid from $80 to as high as $100 for fruit for canning purposes, depending on the district, time when fruit was ready, and the grade and quality. Fruit for drying purposes sold at comparable figures.

Fresh shipments on auction markets in 1952 averaged about $165 per ton net to the grower; 290,000 lugs of Royals averaging $4.49 a lug delivered or $185 per ton net to growers, and 135,000 lugs of Tiltons $3.50 delivered or $110 per ton net to growers. This compares in 1951 with 381,000 packages sold at auction (both Royals and Tiltons) at a delivered price of $3.56 or $118 per ton net to growers.

All apricots sold fresh in 1951, including those sold at auction and private sale, averaged slightly higher than this figure.—*Fred W. Read, California Fruit Exchange.*



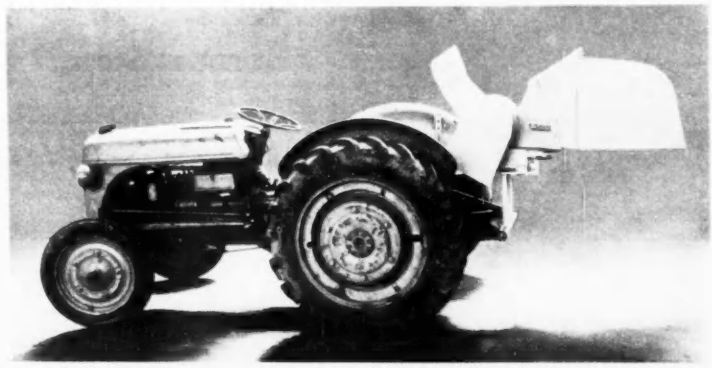
EASY BRUSH DISPOSAL

from fast working power-driven loppers and shears is now possible with the Fitchburg Chipper. This sturdy, powerful and fast cutting machine can be either tractor or truck mounted. It cuts either large or small branches with equal facility. Many units now being used by commercial growers have paid for themselves in two seasons. Increase your orchard profits.

THE FITCHBURG CHIPPER

● There just isn't any brush problem if you use a Fitchburg Chipper. As fast as prunings are cut from the trees, they can be fed into the hopper and converted into useful mulch. The United States Dept. of Agriculture recommends wood chips for the generation of valuable nitrogen in the orchard floor. The Fitchburg Chipper is the fastest and most economical machine for this purpose.

Write today for prices and details. State maximum size of prunings.



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that your local fertilizer dealer furnish you a completely mineralized fertilizer containing the essential mineral elements!

COPPER FUNGICIDES

TENNESSEE TRI-BASIC COPPER SULPHATE

COPPER FUNGICIDES are very effective in the control of peach leaf curl. These materials should be applied in the dormant period before the buds swell. Tri-Basic Copper Sulphate may be used in the spray tank alone. Tennessee Tri-Basic Copper Sulphate contains not less than 53% metallic copper. Some growers prefer to use Bordeaux mixture prepared by mixing Copper Sulphate and lime.

NU-Z

We highly recommend neutral zinc in combination with the summer organic insecticides for summer sprays on peaches. Neutral zinc (NU-Z) greatly stimulates leaf growth and aids in the control of bacteria leaf spot on peaches. NU-Z contains 55% metallic zinc.

MICROGEL is very effective for the control of melanose and scab on citrus fruits; black rot, mildew and anthracnose on grapes. Microgel contains 50% copper as metallic and is chemically stable. The particle size is very fine, insuring better coverage and adherence. Microgel is also recommended for dormant spraying of peaches.

TENNESSEE "26" Copper Fungicide is a neutral water insoluble copper compound of extremely fine particle and is especially recommended for control of Cherry Leaf Spot on sour cherries. Also very effective for controlling scab, blotch and fruit spot.

ES-MIN-EL
ESsential MINeral ELements
SOIL APPLICATION

For healthy trees and vitamin-rich fruits your soil must have the proper mineral balance. Minerals are just as essential to the health of your trees as they are to the human body. Fruits and vegetables rich in vitamins cannot grow in soil poor in minerals. Es-Min-El contains these minerals: Zinc, Copper, Manganese, Boron, Iron and Magnesium—all essential to healthy plant growth. For healthier plants and increased yield of vitamin-rich fruits, mineralize your soil with Es-Min-El.

FREE LITERATURE

For free literature on the above products, send card or letter to Tennessee Corporation, Grant Building, Atlanta, Georgia.

TC TENNESSEE CORPORATION

617-29 Grant Building, Atlanta, Georgia

NEW FRUIT VARIETIES

(*Continued from page 31*)

red, firm, clingstone; skin: red, tough, astringent; suture diameter, about two inches. Matures first of August. Tree: productive, highly resistant to bacterial canker and leaf spot.

RASPBERRY

Early Red was originated by Stanley Johnston, South Haven (Mich.) Agricultural Experiment Station. Introduced commercially December 6, 1952. Parents: Lloyd George and Cuthbert. Fruit: large, matures early; light red when first ripe, turning rather dark when fully ripe. Drupelets separate easily from torus at maturity. Flavor: fine. Withstands canning very well without crumbling; freezes as well as Latham. Plant: upright, tall, vigorous, hardy, very productive; canes: numerous, moderately stocky, quite thickly covered with stiff, sharp, reddish-brown prickles.

STRAWBERRY

Albritton was produced in a co-operative project between the North Carolina Agricultural Experiment Station (E. B. Morrow) and the USDA (George M. Darrow). Result of crossing a plant of the cross Southland x self with a plant of the cross Massey x self. Fruit: about the size of Massey, vivid red, turning to a deeper red when fully ripe; glossy, holding this appearance longer than any other variety yet tested in North Carolina; ripens about the same time as does Massey in eastern North Carolina. Plant: vigorous, productive; yields have been better than for other commercial varieties in eastern North Carolina. Suggested for trial as a commercial variety of the Massey season for eastern North Carolina and adjacent areas. Introduced commercially December 15, 1951.

Eden is the origination of George L. Slate, New York State Agricultural Experiment Station, Geneva, and was introduced December 1, 1951. Cross of Dresden x Fairfax. Plant: vigorous, healthy, propagates readily; is one of the more productive berries. Fruit: wedge-conic to conic, attractive, glossy, tart; skin, tough; seeds: even with surface of berry. Its primary use is for freezing, preserving, and canning. The first picking is with or slightly before that of Sparkle.

Grandview originated in Grandview, Ind., by Albert B. Cook. Introduced commercially in 1952 by Bountiful Ridge Nurseries, Princess Anne, Md. Fruit: large, conical, quite similar to Midland. Grandview matures three days before Catskill, and is a better plant producer than that variety.

WALNUT

Adams originated in Salem, Ore., by Moses P. Adams, and has been assigned to the Oregon State College. It is an open pollinated seedling of P. I. 18256, being selected in 1940. The nut is identical with Franquette but matures 7 days earlier. Introduced commercially April 2, 1952.

Colby was originated by A. S. Colby, Illinois Agricultural Experiment Station, Urbana. Introduced commercially in 1952. Open pollinated seedling of Crath 10; seed secured from Cosseey, Poland, in 1934. This Persian walnut is thin shelled and well sealed, with a plump kernel having good flavor and early maturity. Tree: hardy, fruitful in central Illinois. Probably best adapted to areas north of the Ohio River. It flowers early and is protandrous. THE END

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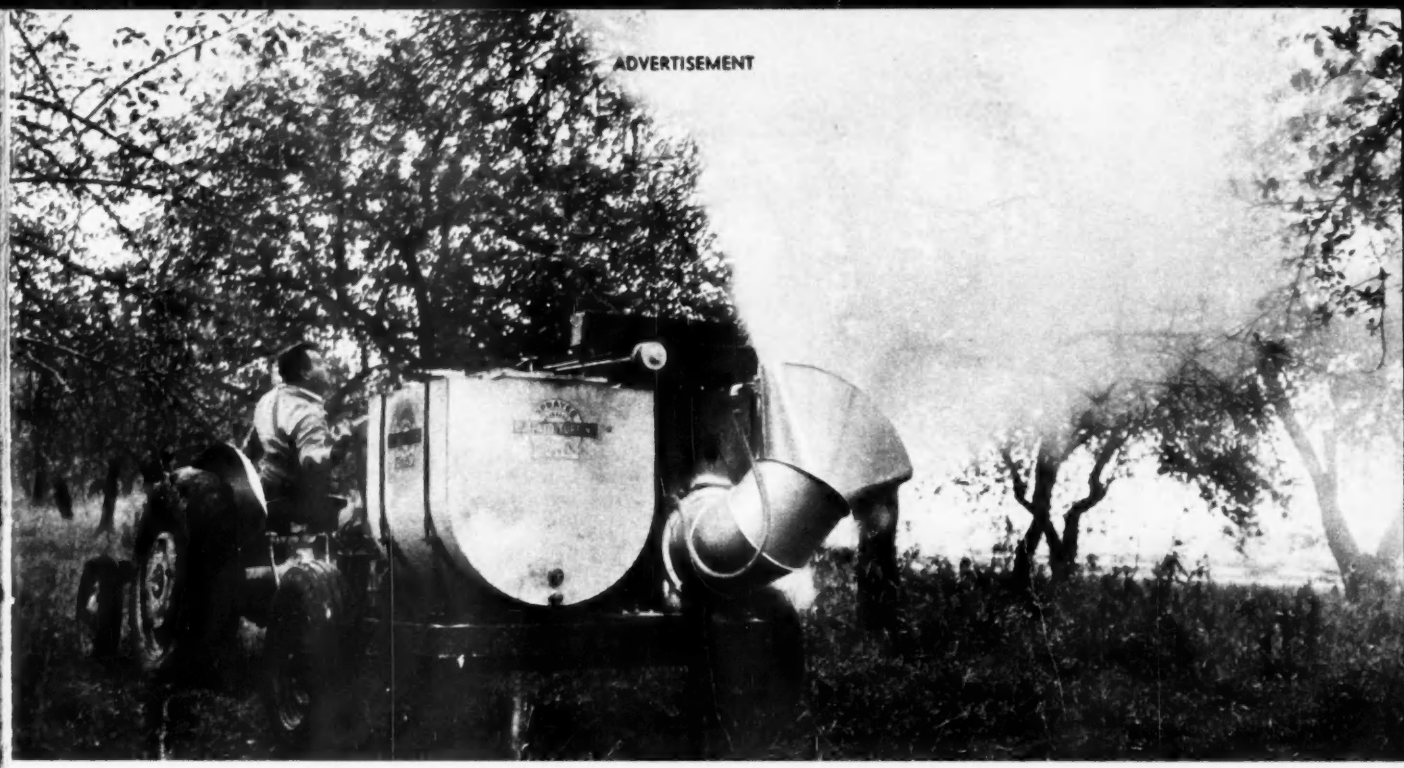

CONCENTRATE SPRAYING EQUIPMENT

This is the second of three articles dealing with concentrate spray equipment. It is hoped that these articles by M. A. Deveraux will help many growers evaluate concentrate spray equipment as a method of making greater orchard profits.

By M. A. DEVERAUX

What Growers Report

REPORTS from all the fruit and vegetable growing areas of the United States indicate that growers are turning to concentrate spraying equipment. This change in equipment is the result of a crying need to reduce insect and disease control costs. No longer can the grower, if he wants to operate at a profit, use inefficient and high original cost equipment. Therefore it can be said that concentrate spraying is here to stay.

The pattern of grower success with concentrate sprayers is a logical and realistic approach to higher profits in fruit growing. During last season I spent a great deal of time traveling over the country, talking with growers who have converted to concentrate sprayers. In every case they reported that this change has meant added profits and decreased maintenance costs. Harold Doyle, in New Jersey, with whom I spent several days, summed up his experience with the new type sprayers by saying, "Buffalo Turbine has cut my spraying costs over 50%, and decreased my maintenance costs." Doyle, who is a big fruit grower, told me of several others in his immediate area who have done the same thing. From New Jersey I went to New Hampshire and talked with Ira White, who told me the same story, and pointed out that if it wasn't for concentrate spraying equipment, many growers would now be out of business.

In New York State the same was true. W. A. Wagemaker tells of the splendid success he has had with the well-known and well-constructed Buffalo Turbine concentrate sprayer in his orchards. Mr. Wagemaker also used the same sprayer, with a change in the air nozzle, for his row crops. Harold Hugus, of Rushville, Ohio, who raises 55 acres of peaches and apples, said that "our crop was the cleanest we have ever grown, but, more important, cost 50% less to spray because of the highly efficient Buffalo Turbine." From the Province of Ontario, Canada, comes a report from M. E. Mansfield, a grower of apples, peaches, pears and grapes, who states "My 1952 crop was the cleanest in Canada." Mr. Mansfield further reported a 75% saving in time, with practically no maintenance costs.

George S. Smith of Thomas S. Smith & Sons, Inc., probably one of the largest growers in the United States, with orchards in Michigan, Illinois and Missouri, keeps very detailed records on spray equipment, and he found very substantial savings in his use of eight Buffalo Turbines. Not only do his records indicate savings on labor and material, but very substantial savings in equipment cost and maintenance.

From Virginia, Maryland, Pennsylvania, Texas, Wisconsin and California, also come many favorable reports regarding the use of Buffalo Turbine concentrate equipment. In view of these many reports, it would seem that it is high time that all growers gave careful consideration to concentrate equipment. Savings in time, labor, equipment and maintenance costs will make the difference between a good and a bad year. As the fruit and vegetable business becomes more competitive, it will be the efficient grower who makes a profit, and the efficient grower today is a concentrate sprayer owner.

The first manufacturer of a concentrate sprayer was Buffalo Turbine. Eight years of actual orchard testing and use by way of the country's leading growers has proven this machine to be of real value to all growers.

Buffalo Turbine, through its well-established distributors and dealers, is properly set up to give you immediate service. Write for additional information on concentrate spraying equipment. Capable representatives in each area will be glad to provide complete information. You will find the original cost of Buffalo Turbine Mist Sprayer-Dusters to be low and well within your reach financially.

Increase your profits in 1953 along with the many outstanding growers who now use Buffalo Turbine concentrate sprayers.

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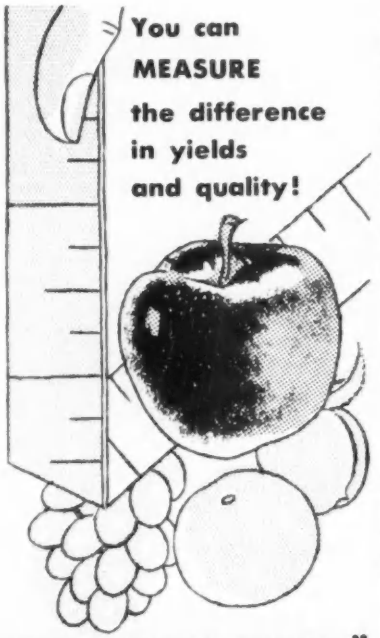
AGRICULTURAL EQUIPMENT COMPANY, INC.
GOWANDA, NEW YORK



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Swift & Company, Plant Food Division
U. S. Yards, Chicago 9, Illinois

CHERRIES

(*Continued from page* 16)

declined steadily until 1950. This trend was reversed in 1951, however, and now there is a slight increase in bearing acreage. This should continue because the low point in non-bearing acreage was reached in 1945. Since then, the non-bearing acreage has trebled in California.

Winter Injury

In the Pacific Northwest, cherries were the most seriously damaged of all fruits during the series of recent cold winters. Some orchards were seriously impaired and in cases killed outright, while others escaped with little or no damage. Some reflection of this condition is seen in the lowered tonnages in 1952 in those states.

Prepackaging

Prepackaging of sweet cherries for eastern shipment is still of minor importance; the double row-faced packed box is still most widely used. Several of the larger shippers of sweet cherries are using the consumer package to advantage, but none of this type was seen on the auction markets this past year.

Varieties

Van should be considered in any future plantings as a substitute variety for Black Tartarian in pollinating other varieties as well as for its fruit production. Black Tartarian is a good variety when free of virus and virus-like diseases, such as crinkle leaf and deep suture, but to date the replantings of healthy trees are so negligible that Van should be kept in mind as a replacement for Tartarian.

Since Napoleon (Royal Ann) is so susceptible to buckskin, a replacement for this variety would be most advantageous for all cherry districts in the far western states. Other new varieties should be given a fair trial by growers. Among these varieties are Ebony, Lamida, Spalding, and Starking Hardy Giant.

Sweet cherry breeding work is being done at the agricultural experiment stations in the far western states and also in British Columbia (Van is one of their originations). Many new and promising selections are on trial and as these are pointed to be replacements or to fill gaps of existing varieties, they should be closely observed by growers.

Virus Diseases

Virus and virus-like diseases are still exceedingly important in the production of sweet cherries in all the far-western states. Buckskin again is a serious threat to production in California, not only in the districts formerly infected, such as Green Valley, but in the large San Joaquin district where it was discovered in 1951.

It is becoming more and more obvious that growers should only plant trees which are free from virus and virus-like diseases.—*Reid M. Brooks, University of California.*

Unprofitable Price Opens Red Tart Cherry Season

Crop estimates which proved to be too high, and an excessive carryover of low-grade cherries combined to bring about an unprofitable opening price for red tart cherries.

USDA's estimate on June 1 was 304 million pounds. Growers and processors at the annual meeting of the National Red Cherry Institute estimated the crop at 218.6 million pounds at that time. At harvesttime the commercial pack proved to be about 200 million pounds. Actually, the growers and processors estimate was pretty much in line with the crop on the trees until the high winds in July destroyed a substantial percentage of the cherries in Michigan.

PRODUCTION—Thousand Tons—All Varieties

	Total	Sweet	Sour
Average: 1941-1950	191	92	99
1950	239	82	157
1951	230	72	158
1952*	202	96	106

USDA PRODUCTION ESTIMATES OF RED TART CHERRIES—1952 SEASON**

	June 1	June 15	July 1	Aug. 1
	(millions of lbs.)			
New York	48.2	51.2	48.2	40.2
Pennsylvania	19.6	19.6	18.4	17.8
Ohio	4.7	4.7	4.8	4.6
Michigan	174.8	165.6	159.0	110.0
Wisconsin	32.8	31.1	27.8	21.8
Other States	23.9	23.9	22.8	14.3
Total, U.S.	304.0	296.1	281.0	211.7

** USDA figures include cherries sold fresh and not marketed and, therefore, are not completely comparable with commercial pack figures.

RED TART CHERRIES PACKED—CANNED AND FROZEN

	Grower-Processor Estimate June 5, '52 (millions of lbs.)	Actual Pack** 1952
New York	39.0	34.5
Pennsylvania	18.0	15.5
Ohio	3.5	
Michigan	120.0	137.3
Wisconsin	26.0	
Other States	12.1	Not avail.
Total U.S.	218.6	(approx.) 200.0

** Source—National Canners Assn., Assn. of N.Y. State Canners & Freezers, and Michigan Canners Assn.

Excessive stocks of frozen cherries just ahead of the 1952 harvesting season had a depressing effect on the market. Prices at that time had actually declined from 2 to 3 cents below selling prices the previous August.

COLD STORAGE STOCKS OF FROZEN CHERRIES

	June 1 (thousands of lbs.)
1950	18,391
1951	29,014
1952	30,447

Such were the existing conditions when grower prices were established for the 1952 crop. When the shortage in the crop became evident the market for cherries strengthened rapidly. But the damage had been done so far as the grower who sold at harvesttime was concerned.

Some Challenging Problems

The 1952 season illustrates a problem that is not new but which is a challenge to cherry growers. In 1952 the grower who took the "spot" market—sold his entire crop at harvesttime—took a low price. Later developments proved it to be far lower than was justified. But growers who sold their cherries and processors who were buying and selling at that time had to make a decision for their entire production based on the spot market.

The growers were the losers in 1952. In some years the processors lose. But the question is, "Can cherry growers expect to get maximum returns by selling on a spot market? Or, to get maximum returns, must growers assume part of the financial burden and responsibility and sell their crop throughout the season?"

These are questions to which cherry growers—faced with steadily increasing production—must find correct answers. Many growers have made satisfactory arrangements with processors and are cashing in on present higher prices.

Ever-increasing production from the new plantings poses another major problem. Where is this new production to be sold? That is a problem growers and processors through the National Red Cherry Institute are spending time and money to solve—with excellent results.

New Outlets

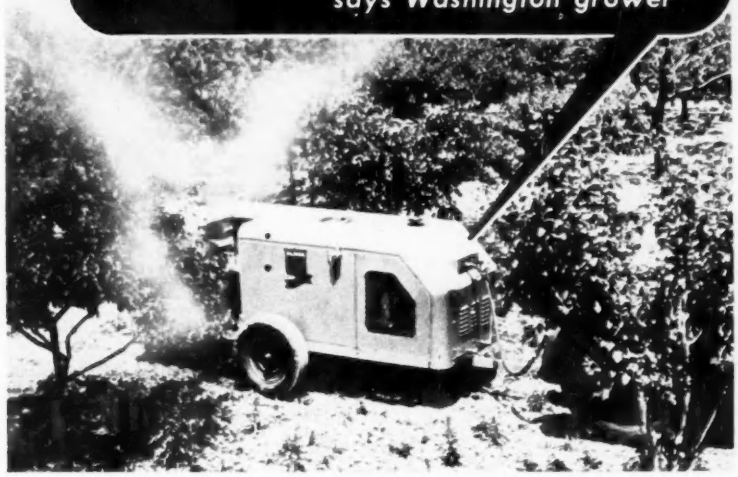
New outlets for cherries seem promising. The consumer package of frozen cherries appears to be coming into its own. After several unfortunate experiences with various types of packages the trade seems agreed on the tin can as a practical container. However, it will take time and promotion to develop this market to its full potentialities.

Another new product, canned cherry pie mix, in consumer packages, has been introduced and is reported to be getting excellent consumer response.

Continuance of the 1952 high quality pack, further development of orderly marketing, and universal support of the program of the National Red Cherry Institute will go far in establishing a bright future for the industry.—*Horace M. Putnam, National Red Cherry Institute.*

"IRON AGE Mist Sprayer more economical . . . does better all-around job"

says Washington grower



Gets firmer stem, less droppage, higher crop profit —uses less spray material with *IRON AGE*

JOE HOLTHAUS, who grows apples, peaches and pears near Yakima, Washington, really appreciates what his Iron Age Mist Sprayer does for him, because he proved to himself how he could cut orchard operating costs spraying the Iron Age way.

Here's what he says about the comparison spraying test he made:

"I sprayed one acre with an old style heavy application sprayer, using 800 gallons of spray. On another acre I applied 200 gallons of spray material with my Iron Age Mist Sprayer. The fruit sprayed with the Mist Sprayer developed a much firmer stem, resulted in a very low percentage of droppage . . . a higher profit on the crop. And . . . I used only a quarter as much spray material. I'll recommend Iron Age to any grower . . . it's easier to use, more economical to use, and does a better all-around job."

Once they've tried Iron Age Mist Spraying, growers are never again satisfied with ordinary spraying methods. They like the Mist Sprayer's double-axial blowers that spray from either side. They know they get the volume and velocity of mist necessary for complete coverage. They like the *light weight* which permits early spraying on soft ground, the maneuverability that allows close quarter work. It all adds up to more perfect fruit at much less cost.

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The new BUD Commercial Orchard Pruner has been orchard tested. Many of the largest growers in the country are using and saving money with BUD pruners. For 25 years we have been major suppliers of industry and agriculture. The BUD pneumatic pruner will not freeze in winter. The newly designed cutting head does away with wearisome pushing and shoving.

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The Bud Manufacturing Co. will replace free of charge, within one year of date of sale, any cutting head which in its judgment has failed because of defective material or workmanship, providing it has received normal use and not subject to abuse in operation or otherwise. Such cutting heads must be returned to the factory, charges prepaid and with complete information as to service.

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J. E. MILLER NURSERIES
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CITRUS

(*Continued from page* 19)

fruits it is supposed to contain—usually a few fruits extra. The fruit is shaken down mechanically into a solid pack and the boxes sealed by mechanical methods. Using this system, the labor costs for packing have been reduced 75 per cent from the hand-place packing methods.

Other advantages of this system of packaging lie in the saving of several cents a box on freight because of the lighter weight of the new container. Practically no freight claims arise due to broken boxes.

Damage to Fruit Reduced

Less loss from fruit damage results from using this container, since the fruit undergoes none of the pressure commonly applied when the lid of the standard wooden box is nailed down, and the use of diphenyl on the inside of the carton largely eliminates fruit decay.

Since the fruit is not wrapped in tissue when packed, the retailer is spared the cost of removing wraps when putting the fruit out on display. The half-box is easily handled by store personnel and, so far as lemons are concerned, the half-box opens markets where store traffic is so small that a whole box of fruit cannot be sold before loss from decay or shrinkage occurs.—*Willis H. Parker*

Texas Rebuilds After Severe Freezes

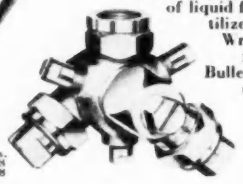
The citrus industry of the Lower Rio Grande Valley of Texas is slowly but surely being built back after the severest freezes to hit this area during the past 50 years. Counts made by USDA orchard (fruit fly) inspectors show that there are more than 3½ million citrus trees in the valley which are worth saving. About one-third of these trees that weathered the storm are over 10 years of age. The other two-thirds are young trees (mostly red grapefruit) that were "banked" when the freezes occurred.

Drought and a shortage of irrigation water has hindered the recovery of trees injured by the cold, and the crop on most old trees is less than half of normal. Barring further setbacks, the valley should have about 3 million trees of bearing age during the 1953 season. Valley interests are hoping that a 5 million-box crop will be harvested in 1953, but much depends on the weather. If such a crop is realized, it will be about 60 per cent oranges and 40 per cent grapefruit as orange trees withstood the freezes better than did grapefruit

NEW FOR FARM SPRAYING

GunJet ... the new heavy duty unit for orchard spraying, cattle spraying and related uses. Exclusive features include non-jamming valve assembly, easy packing adjustment, and hardened stainless steel tips. Write for Bulletin 65.

BoomJet Spray Nozzles ... supplied in variety of types producing spray pattern widths up to 66 feet. For weed control in grains, grasses and other general broadcast uses such as spraying of liquid fertilizers. Write for Bulletin 66.



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SPRAYING SYSTEMS TeeJet SPRAY NOZZLES

AND ... for farm spraying of every kind ... TeeJet Spray Nozzles with interchangeable orifice tips. Write for Bulletin 58.

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—ideal for loading and unloading. Handles commodities up to 60 lbs. — moves bags, cases, cartons, hollow bottom, narrow, cleated and irregular packages or articles not suited to wheel conveyors. Less pitch required — operates at grades as little as ¼ in. to ⅜ in. per ft. Interchangeable spacing of rollers — from 1½ in. to 12 in. centers. Available in 10 ft. and 5 ft. straight sections and 90° and 45° curves. Keep LITEWATE conveyors handy in your shipping room — carry a section on your truck. For complete information write for Bulletin AFG 13.

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trees, and they have recuperated at a more rapid rate.

Ample Planting Stock

There are ample supplies of budded nursery trees to meet the needs for planting stock, and nurserymen report a good demand for trees despite the drought and water shortage. There are large numbers of seedling rootstock plants that have been lined out, and more are in the seedbeds. Quantities of seed have been ordered for planting next spring, and there should be a continuous supply of planting stock to replace the lost acreage at the rate of more than a million trees a year.

Nursery trees which are state certified to be free of communicable virus diseases such as psorosis will be available to developers of new orchards at a slight premium. There also will be some trees on Tristeza-tolerant understocks (principally Cleopatra mandarin) at a slight increase in cost. However, most of the new acreage (probably 85 per cent) will be grown on sour orange understock.

Grapefruit Dominates Plantings

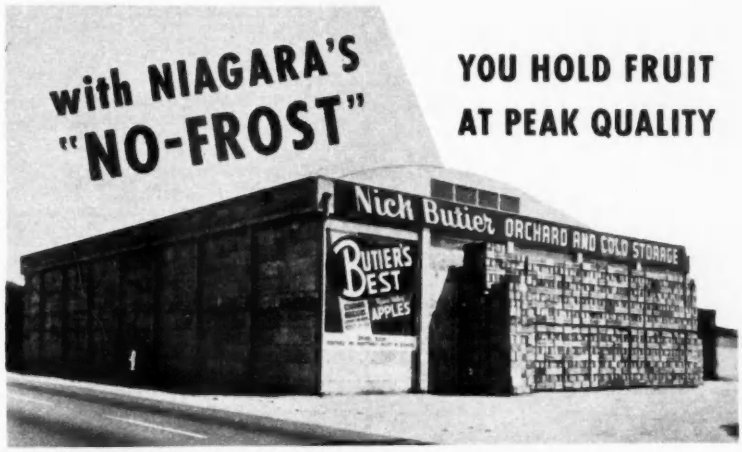
Red and pink-fleshed grapefruit will constitute fully 85 per cent of the new plantings, late oranges about 10 per cent, and early oranges about 5 per cent. Valley growers are counting on their early (fall) ripening, mild-flavored, attractive, seedless grapefruit to help them dominate most fresh grapefruit markets during the fall and winter months.

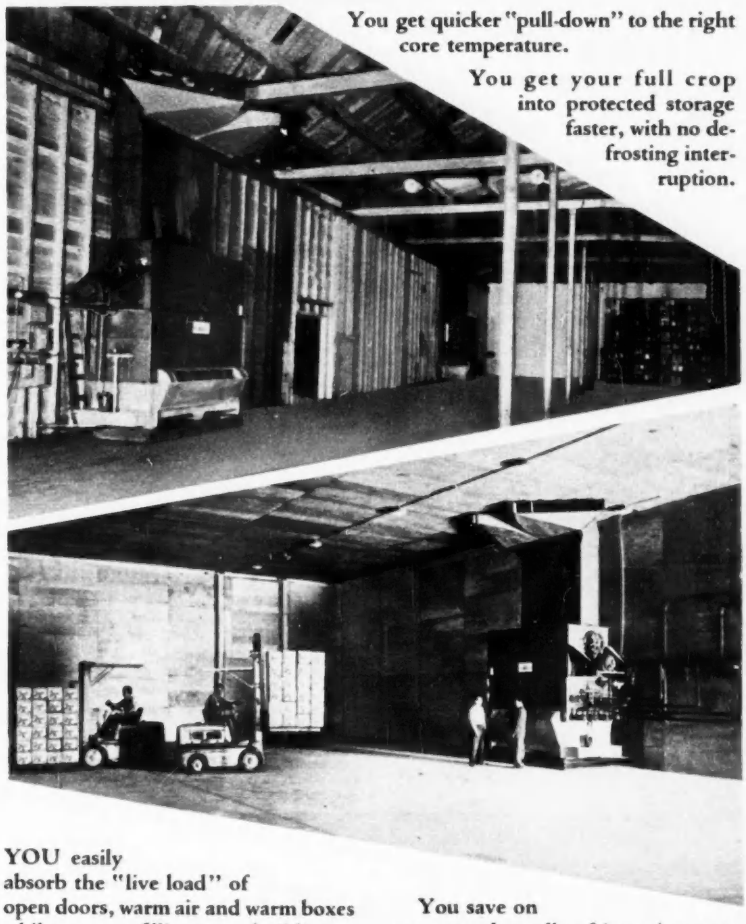
Early ripening red and pink grapefruit encounters less competition than is the case with other varieties. This should help valley growers in finding profitable outlets in markets which are likely to be oversupplied with ordinary fruit.

The orange outlook isn't so good, considering the potential production from Florida and California and the advent of frozen orange concentrate. However, valley fruit has a decided freight advantage in many markets and should be able to compete.

The Lower Rio Grande Valley has been endowed by nature with a combination of soil and climate that makes it possible to produce good yields of early ripening grapefruit and oranges with acceptable taste and appearance. The cost of developing a bearing citrus grove is moderate in this area, and it seems reasonably certain that Texas will rebuild its citrus fruit empire.—*W. H. Friend*

Read the advertisements and mention AMERICAN FRUIT GROWER when you write for information.





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You get your full crop into protected storage faster, with no defrosting interruption.

YOU easily absorb the "live load" of open doors, warm air and warm boxes while you are filling your building.

You quickly get and hold uniform temperature throughout your storage building.

You get and hold high humidity in storage, holding your fruit at peak of quality.

Temperature never rises while you are storing or holding fruit.

You save space in your building for more profitable storage.

You save on power and on all refrigeration costs.

You save labor and get the simplest, easiest-handled refrigeration system.

You keep your fruit better and more saleable at higher prices and increase your profit.

Find out now how to do this—write

NIAGARA BLOWER COMPANY
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Field Engineers in Principal Cities

Versatile

HALE Centrifugal Orchard Sprayer sprays at any capacities and pressures, up to 100 G.P.M. at 600 lbs. at fast tractor speed. No relief valve necessary. The most versatile sprayer on the market.

Write for Bulletin #302, State Size of Grove or Orchard.

SPRAYER DIVISION

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Compare the Hale Centrifugal Sprayer for weight—makes for easier handling with smaller tractors.

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Sprays efficiently as fast as your tractor can run thru orchard or grove. Remote controls for convenience and saving of materials.

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RED-E TRACTOR CO. RICHFIELD 359 WISCONSIN

GRAPES

(Continued from page 20)

regulating the export of grapes to be operated under laws now in force. A committee of four Canadians and four Americans was appointed to discuss mutual problems in the future. Representing U.S. on the committee are Carl E. Buskirk, Paw Paw, Mich.; Douglas M. Moorhead, North East, Pa.; Don J. Wickham, Hector, N. Y.; and C. K. Bullock, Ithaca, N. Y.—*H. K. Fleming*

Trucks and Cold Storage Influence California Grape Movement

The California grape crop in 1951 was huge. The 1952 crop might be defined as bigger than average. California is harvesting 2,956,000 tons of grapes. In 1951 the crop hit a peak of 3,224,000 tons.

A record number of table grapes may be shipped this season. Estimates are that 6,875 cars and another 1,200 cars by truck will go East. The previous record was in 1948 when 8,023 cars rolled, but only 500 of these were by truck.

One trend in the industry is to move more grapes by truck. Another trend is the planting of more storage grapes such as Emperors. Last year the last car of Emperors out of cold storage went East May 7 and about five weeks later, on June 12, the first fresh shipment of grapes from the Coachella Valley hit the rails. With the increased cold storage facilities fresh grapes are being shipped from the state almost every month of the year.

Prices Erratic

Fresh shipments will average about $3.15 a package this season compared to $3.18 last season. Prices have been very erratic, as demonstrated by the following for Thompson seedless as a weighted auction price.

PRICES—Auction

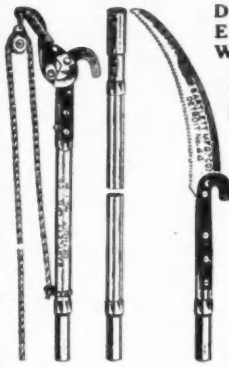
Weighted Auction Prices Per Package of Thompson Seedless

July	5	$ 6.43	Sept.	13	$3.20
"	12	8.29	"	20	2.81
"	19	10.40	"	27	2.20
"	26	4.01	Oct.	4	2.44
Aug.	2	5.27	"	11	2.85
"	9	4.14	"	18	3.60
"	16	2.96	"	25	3.66
"	23	2.45	Nov.	1	3.66
"	30	2.47	"	8	3.85
Sept.	6	3.16	"	15	3.73

Tokays this season have been averaging $2.27 against $2.52 last season; Emperors $2.53 against $2.32; and Ribiers $3.50 against $3.56.

The price for wine grapes has been rather disappointing to the grower. He probably will average about $25 a ton. Last season the average came closer to $32. That is quite a drop in

BARTLETT TREE TOOLS



DOUBLE EFFICIENCY WITH THIS WE-COMBINATION PRUNER and SAW

1WE Compound Lever Tree Trimmer clips 1¾" branches easily. Furnished with 30" top sections and either 6' or 8' extra handle sections of 1¾" (Sitka Spruce) Octagon Pole. Pruner and Saw combination illustrated is used by telephone companies, utilities and tree experts. Write for catalog.

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For destroying and preventing the growth of wood-destroying fungi and for the protection of wounds, use Bartlett Tree Paint. Easily applied with ordinary paint brush. Used by U. S. Government, State Highway Departments and Tree Experts. **$2.25** Gal. F.O.B. Detroit Via Express

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Just one demonstration proves M-E! Variable wheel and rotor speeds give controlled soil aggregation in tilling and cultivating . . . universal tines are self-sharpening, non-winding, guaranteed against breakage! 6 models . . . 15 quick and easy plug-in attachments. See and buy M-E! $188 and up.

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THE STANDARD FOR NORTHWEST GROWERS

Pump gun action, light but durable structure, and cutting power created by leverage, make the WELLS & WADE PRUNER the ideal pruning instrument. Workmen actually do 50 to 100 per cent more pruning per day with no more, and often less, exertion.

The pump gun features of the W. & W. PRUNER enable workmen to use both hands for guiding the blade, and the cutting is performed without shifting position of the hands.

★ Pruner Handle Slides, Weight 2¼ lbs., per doz.

★ Pruner Blades, Weight 18 oz., per doz.

★ Pruner Blade Screws, Weight 2 oz., per doz.

A PROVEN PRUNER— WELL ACCEPTED BY ORCHARD MEN FOR OVER 20 YEARS

	Wt. per doz.
6-Ft. Pruner	40 Lbs.
8-Ft. Pruner	50 Lbs.
10-Ft. Pruner	55 Lbs.
12-Ft. Pruner	65 Lbs.
14-Ft. Pruner	75 Lbs.
16-Ft. Pruner	85 Lbs.

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WENATCHEE, WASH.

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- **NEW** high performance
- **NEW** all-around dependability

ALSO BOW MODEL

LOMBARD, DEALER OPPORTUNITY 214 MAIN ST. ASHLAND, MASS.

income when you consider that 1.2 million tons will be crushed.

Raisin Dilemma

The raisin situation has also caused quite a bit of concern. The growers made heroic efforts to solve their own problems. They formed a Federal Marketing Agreement and Order for California Raisins which divides the crop into free, reserve, and surplus pools to be disposed of in that order. The governing committee composed of growers, dehydrators, packers, and processors negotiated a deal to sell 50,000 tons to Britain and this relieved the surplus somewhat.

The government provided what is called the Raisin Export Payment Program. They paid about 2.5 cents a pound bonus to those selling raisins abroad with the thought that with this bonus they could sell more cheaply in the foreign market. By means of this program 131,660,000 pounds of raisins were sold abroad and the government put up some $4 million to relieve a serious oversupply. The raisin growers also had a state marketing order for the promotion of the sale of raisins. They assessed themselves for these funds.

Growers Assess Themselves

The growers of Tokay grapes, while a relatively small group, formed their own state marketing order and assessed themselves to promote the sale of Tokay grapes.

The wine industry has also used the marketing agreement to assess themselves for the promotion of the sale of wine. These efforts of self-help hurt when the price is low, but you have to admire the man who will put an assessment on his own crop to help sell it.—*Jack T. Pickett*

BUILD FOR THE FUTURE

Economy-minded fruit growers who want to improve and expand their orchard operations and build for the future should have the following building plans which AMERICAN FRUIT GROWER is now making available to its readers.

Working drawings showing construction details are included.

Roadside Market	$ .50
10,000-Bushel Apple Cold Storage	1.00
Tenant House	1.00
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Send remittance in the form of check or money order to

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AGRICULTURAL SPRAY

Years of usage have proven the effectiveness of Puratized Agricultural Spray.

Elimination of scab means bigger crops, quality fruit and better profits. That is why commercial growers everywhere use Puratized Agricultural Spray.

Research authorities recognize its effectiveness for the control of scab and other plant diseases.

EASY TO USE
Readily water soluble. Leaves no visible deposit. Can be applied with other insecticides and fungicides.

VERSATILE
Also effective for brown rot, blossom blight of cherries and peaches, and other plant diseases.

ECONOMICAL
One gallon makes 800 gallons of spray.

Consult your local dealer or write today for further information.

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NUTS

(Continued from page 22)

estimate that under suitable conditions it is possible to produce 2,000 pounds of chestnuts per acre with grafted varieties.

In 1951 the Southeastern Chestnut Growers Association was formed to assist growers with cultural and marketing problems. Methods of shelling and processing chestnuts are under investigation by the Alabama Polytechnic Institute.

The potential demand for sweet chestnuts coupled with an expected decrease in imports of European chestnuts because of the blight disease in European countries makes Chinese chestnut a very promising nut tree for the eastern U.S.

Hardy English Walnuts

Some 20 years ago Reverend Paul Crath of Toronto, Canada, introduced to Canada and the U.S. hardy strains of English walnuts from the Carpathian Mountains of Poland and adjacent areas. In 1951 the Northern Nut Growers' Association conducted a nationwide contest to locate and evaluate the more promising Carpathian selections and several were found which are believed suitable for planting in most of the midwestern and eastern states, as well as in Ontario and British Columbia, Canada.

Nut nurseries are now producing the newer Carpathian varieties. However, their supply of trees of these hardy varieties which withstand subzero temperatures may not be adequate this season to meet the demand.

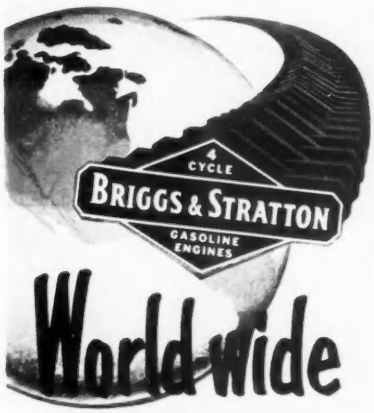
Other Hardy Nut Varieties

Hardy, improved varieties of thin-shelled hickories, hybrid filberts, and improved heartnuts and butternuts also are available for planting in eastern U.S.—*Spencer B. Chase, Sec'y, Northern Nut Growers' Association.*

Western Walnut Harvesting Becoming Mechanized

The Pacific Coast harvested a 1952 walnut crop estimated at 79,700 tons, which is 3½ per cent larger than in 1951, but nearly 8 per cent short of the history-making crop of 1949. Approximately 90 per cent was produced in California, the remainder in Oregon and Washington.

While trade prices of in-shell packs are 1 to 1½ cents per pound higher than the previous year, the net to growers may not be greatly changed, the price advantage being wiped out by somewhat smaller sizes and heavier cullage. Even so, quality of the current crop was more nearly normal, whereas the 1951 crop was of unusually fine quality. It is estimated that



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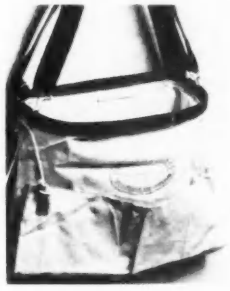

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FRUIT PICKING BAG

This Bag is designed to save fruit, holds one bushel and is comfortable on the picker. With its wide padded metal top rim, specially designed rope side fasteners, wide shoulder strap and spring tension back, this Bag far surpasses any bag on the market today. Sample Bag $3.95 Postpaid. Send Dealer's name with order. We are interested in good dealers —several very profitable territories still available.

Mfg. by
R. K. Canvas & Shade Co.
Wenatchee, Washington

the farm value of the 1952 crop will approximate $440 per ton, or a total of over $35 million for the Pacific Coast.

Production costs continued to increase during the year by an estimated 5 per cent over the previous year, which indicates that on the basis of the return just referred to, the farm price level will not exceed 60 per cent of parity.

Meanwhile, mechanization continues and it is estimated that 150 mechanical harvesters, which pick up the walnuts from the ground after they have been shaken from the trees, were used this season—a gain of approximately 50 per cent over last year.

The harvest was relatively early, the weather was favorable, and there was only spotty evidence of serious labor shortages.—*W. C. Tesche, California Walnut Growers Association.*

Increase in Tariff Strengthens Almond Prices

The 1952 domestic almond crop is currently estimated at 35,300 tons, unshelled. This compares with 42,700 tons produced in 1951. The smaller crop in prospect for 1952 was offset by a record-breaking carryover in the hands of packers. Consequently the Almond Control Board again found it necessary to establish a surplus percentage applicable to 1952 production. The Almond Control Board recommended, and the USDA approved, a salable percentage of 85 per cent and a surplus percentage of 15 per cent—the latter to be diverted from normal markets into by-products.

Prices for the 1952 crop were opened by the California Almond Growers Exchange on October 4. In-the-shell prices were slightly higher than those which prevailed the previous year, whereas shelled almonds were slightly lower. Demand has been satisfactory.

Just prior to announcing opening prices the industry received the welcome news that the tariff on shelled almonds was to be increased 5 cents per pound effective October 1, 1952, on the first 7 million pounds of shelled almonds imported, and that for all almonds over and above the first 7 million pounds imported the tariff would be increased 10 cents per pound.

This action has materially affected the demand for domestic almonds and prices have been some 5 cents per pound higher than they would have been had no such action been taken.

The increase in the tariff is in harmony with the purpose and intent of the marketing agreement, as it would be inconsistent for domestic producers

(*Continued on page* 54)

CAPTAN 50-W
(FUNGICIDE 406)
and
MAGNETIC "70"

YOU CAN'T BEAT THIS COMBINATION IN THE EARLY SEASON SPRAYS

This year we recommend that you try CAPTAN 50-W in combination with MAG "70" in pre-pink through petal fall sprays on apples and in the blossom and early cover sprays on peaches, cherries and plums. The quick-setting, adhesive action of MAG "70" is teamed up with the great, new organic fungicidal properties of CAPTAN 50-W to give you better early season protection... *rain or shine.*

Use CAPTAN 50-W & MAG "70" in early sprays, and CAPTAN 50-W alone in cover sprays in areas subject to sulphur burn. This spray program in 1952 gave maximum disease control on apples with higher yields of cleaner, smoother, better colored *quality* fruit.

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Microfine Wettable Sulphur
For Spraying and Dusting

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"CROWN"
325-Mesh Wettable Sulphur

Quality at lowest cost. Neither too coarse nor too fine for the summer and preharvest sprays on Peach, Cherry, Plum.

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325-Mesh Dusting Sulphur

A free-flowing, neutral dusting sulphur for use in dust mixtures, or alone, on fruits, vegetables, ornamentals. The perfect preharvest dust for Cherry, Plum, Peach.

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Microfine Dusting Sulphur

A free-flowing, microfine dusting sulphur specially formulated for use during light, misty rains.

SULPHENONE 50-W

A microfine wettable powder for use in the summer sprays for the control of mites.

Write for descriptive literature covering these and other uses of Stauffer fungicides.

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by spraying with Scalecide—the outstanding dormant oil spray since 1904. Controls scale, red mite, aphis and other overwintering insects. Now—before new growth starts—spray your fruit trees, shade trees, ornamentals and shrubs with Scalecide. Get it today at your seed, hardware or garden supply store.

Prices East of Mississippi River

1 qt., $1.15; 1 gal., $2.75; 5 gals., $9.30

PROTECT YOUR FRUIT TREES from chewing insects and fungous diseases during the growing season by spraying with *Pratt's Fruit Tree Spray*—a complete spray in one package for all types of fruit. 1 lb., 85c; 3 lbs., $1.50.

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GREENING'S TREES

- **BUD SELECTION**
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The Greening Nursery Company, one of the raiders in bud selection, have for over 100 years given all growers the benefits of their research and improved strains which mean greater orchard profits.

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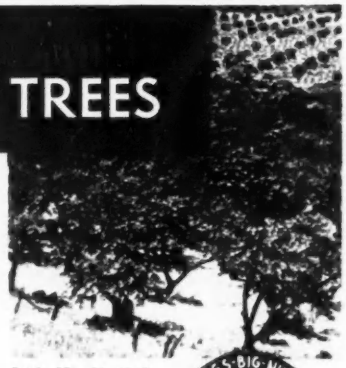

Send 10c to cover postage for the Greening 100 year anniversary 50-page color catalog.

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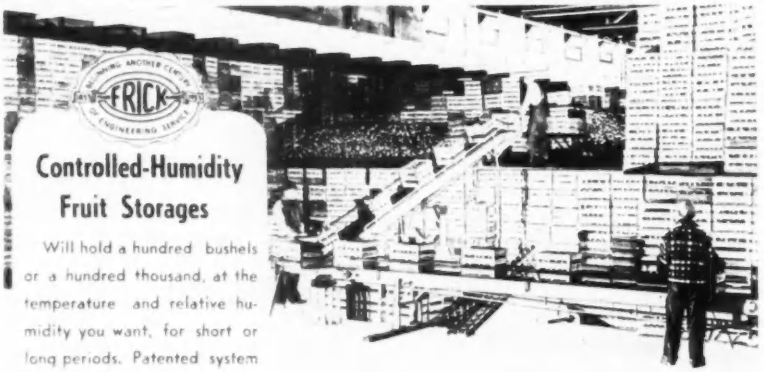

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Will hold a hundred bushels or a hundred thousand, at the temperature and relative humidity you want, for short or long periods. Patented system prevents shrinkage. There's a FRICK refrigerating system of the size and type to meet your needs exactly.

Prepare now for next season: write for Bulletin 146.

DEPENDABLE REFRIGERATION SINCE 1882
FRICK CO.
WAYNESBORO PENNA. U.S.A.
Also Builders of Power Farming and Sawmill Machinery

NUTS

(Continued from page 53)

to withhold 15 per cent of their 1952 production from the market only to find that imports were creating a surplus situation that the marketing agreement had been set up to avoid.

Even though the entire domestic almond production can be marketed at current prices, this season will not be particularly satisfactory to producers who are faced with much lower yields per acre and greatly increased operating costs.—*W. Glenn Stalker, California Almond Growers Exchange.*

Record Crop of Filberts

The 1952 filbert crop in Oregon and Washington is estimated by the USDA at 11,480 tons, about two-thirds larger than the 1951 crop. This will set a record for filbert production.

The latter part of the 1952 growing season was unusually dry. There was a fairly good rain in June, but no subsequent moisture until October 18.

Filberts started dropping about September 16, a little earlier than usual. Growers were happy about the prospects of harvesting a bumper crop without the hazard of rain and the consequent wet ground, leaves, and nuts. The continued drought, however, brought into the picture two other factors that complicated harvesting. A very high percentage of the husks fell early and many good nuts stuck in the husks instead of falling "clean." Also, many clusters of nuts failed to fall even upon shaking the trees.

The use of mechanical harvesters is on the increase.

In four filbert orchards under study by the USDA at Corvallis, Ore., the following comparisons were made between 1952 and the preceding year:

Yield is decidedly higher for the 1952 season, but actual data are not yet available.

Percentage of nuts of the jumbo and large sizes is slightly greater.

Percentages of kernel and filling are slightly less than in 1951.

For two consecutive years it has been found at this station that the larger the nuts, the lower the percentages of kernel and filling. The majority of the increased growth seems to go into shell. Large nuts, however, even though not well filled percentage-wise, will produce more pounds of kernels per given number.

The buyer's price at the close of 1952 was 15 cents a pound; in 1951 it was 17½ cents.—*John H. Painter, USDA.*

BERRIES

(*Continued from page 23*)

in North Carolina is being widely tested by growers throughout the Wallace and Chadbourn districts where Massey now constitutes over 85 per cent of the acreage.

Established varieties still gaining in favor are Temple, Sparkle, and Fairland, all three resistant to red stele root rot. However, Blakemore, introduced in 1929, is still the leading variety of the country because of its extensive use throughout the Central and South Central strawberry growing regions.

Frozen Pack Increasing

The production of frozen pack strawberries is steadily increasing and it was estimated that 35 per cent of last year's crop was thus processed. Although most varieties are satisfactory as frozen pack products, some varieties are far superior to others and growers should give increased attention to the selection of varieties for such purposes.

Eastern growers are being encouraged by frozen pack processors to cap the berries in the field as they are picked. This poses a new problem as most eastern varieties cannot be capped easily in the way Marshall can be on the West Coast.

Strawberry varieties grown for frozen pack should be firm-fruited so that berries can be left on the plants until fully ripe and yet will not deteriorate rapidly when ripe. Picking costs thus may be reduced and quality of fruit improved.

Chemical Weeding

High priced and uncertain supply of labor for hand weeding has forced many strawberry growers to reduce their acreages. Use of chemical weed killers to supplement hand hoeing can overcome part of the labor problem. Extensive tests of Crag Herbicide 1 have demonstrated the chemical to be an effective aid in weed control when used at two to three pounds per acre in two or three applications as needed. As with all chemical weed killers, too heavy an application can be very harmful; so growers who plan to use the chemical for the first time should calibrate the sprayer accurately. When properly used, Crag Herbicide 1 can reduce hand hoeing by 50 per cent or more without reduction in yield.

Blossom Removal

With shortage of labor there is a tendency to cut corners, but one operation that should not be discontinued is blossom removal on newly-

(*Continued on page 56*)

METZGAR GRAVITY & POWER CONVEYORS

SAVE UP TO 70%

OF HANDLING COSTS IN PACKING PLANT OR STORAGE

Gravity Wheel Conveyor on Portable Base at receiving dock

Power Belt Units on Portable Base

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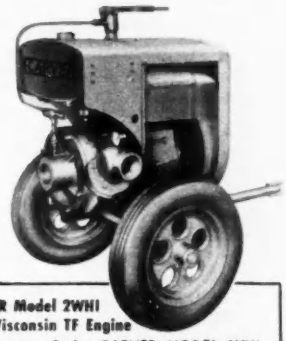

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This is one of the CARVER MODEL WHI PUMPS designed specifically for high pressure sprinkler irrigation.

These units feature compact, portable mounting — exhaust priming with automatic discharge check valve — long life, greaseless mechanical seal.

These pumps are equipped to operate the minute they are put on the job.

CARVER Centrifugal Pumps have earned this reputation on all types of irrigation service.

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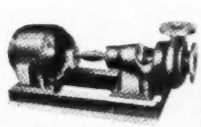
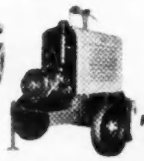
Select your CARVER Pump from a complete line with capacities to 4000 GPM — pressures to 120 pounds. Units available with gasoline or Diesel engine or frame mounted for electric motor or belt drive.

Write for name of distributor nearest you

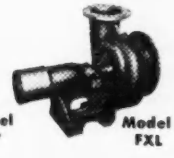


Model L and H



Model WHI

Model "K"



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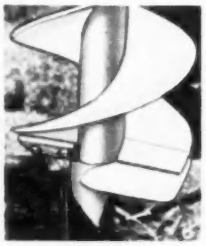
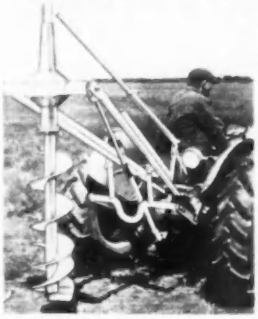
Help fruit growers save work and time. Custom-built for all small tractors.


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18 inch diameter auger saves time planting trees. Replaceable steel bits.

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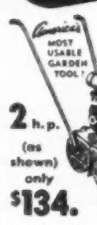
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FREE folder in colors gives complete information. Write today. See your dealer for a demonstration.
ROTO-HOE & SPRAYER CO., Box 53, Newbury, Ohio

BERRIES

(Continued from page 55)

set plants. Blossom removal is very important in establishment of new beds. This year in replicated tests at the U. S. Plant Industry Station, Beltsville, Md., mother plants with blossoms removed had produced 20 runners by July 11 compared to three runners per mother plant for those from which blossoms were not removed. Growing conditions were favorable; had they been unfavorable the difference might have been greater.

Early-set runners are much more productive than those formed late in the season so that growers can expect increased yields from any practice, such as early planting, deblossoming, and weed control, that gets a new planting off to an early vigorous growth.—*D. H. Scott, USDA.*

Cultivated Blueberry Acreage Continues to Increase

Blueberry production in the United States is of two types: fruit harvested from wild plants and fruit harvested from cultivated highbush plantations. Large quantities are harvested from native lowbush stands, especially in New England. Many of these stands are given some care such as weed control, insect control, and periodic pruning by burning over the fields.

Production of blueberries from cultivated highbush plants is a relatively new industry that has increased steadily since it began in 1916. At present there are about 8,000 acres in cultivated highbush plantations, with New Jersey, Michigan, and North Carolina the leading centers of production.

Drought Reduces Wild Crop

Production for the past three or four years has been somewhat higher for wild than for tame berries, but this year's short crop in Maine as a result of drought gave cultivated blueberries a definite lead for the first time. According to preliminary reports of the 1950 Census of Agriculture, Maine produced more than 95 per cent of the wild blueberries harvested commercially. Maine produced about 15 million pounds of wild fruit in 1950, the most recent figures available; whereas the cultivated crop for the country probably didn't exceed 12 million pounds.

Production from cultivated plantings can be expected to increase in the future as the acreage is still on the increase and much of the present acreage is not in full bearing. About half the plantings of Michigan's 3,000 acres are less than five years old, and

it is possible that Michigan's production will nearly double in the next four or five years.

Prices

Prices paid to growers in 1952 were higher than those of the previous year, partly because there were fewer wild berries in New England and partly because the crop of cultivated berries in New Jersey was reduced. The New Jersey crop was estimated to be only 70 to 75 per cent of normal, with most of the reduction apparently due to unfavorable weather conditions during pollination.

Extending the Season

Choice of varieties has always been a major consideration in the establishment of cultivated plantings. Jersey was by far the most important variety in 1950, acreage-wise, as it constituted an estimated 30 per cent of the acreage. About 75 per cent of the young plantings in Michigan alone are Jersey and as they attain full production late-season marketing problems are apt to arise.

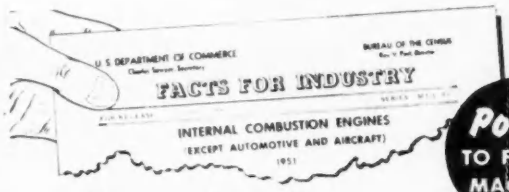
The need for spreading the season by use of good early and midseason varieties to ease the harvesting and marketing problems is self-evident. This is a factor to consider particularly in regions that are apt to compete with Michigan for the same fresh fruit market outlets.

Weymouth and Rancocas, with 8 and 9 per cent, respectively, of the commercial acreage, are early varieties but both have serious drawbacks. Earliblue, Ivanhoe, and Bluecrop are new varieties worth growing for early to midseason cropping. Berkeley, Herbert, and Coville furnish a trio for late season crop.

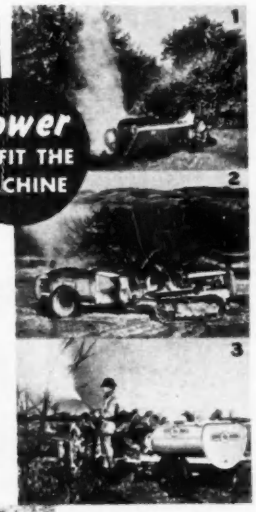
Cane canker in North Carolina has become widespread and destructive, particularly on such susceptible varieties as Weymouth and Stanley. Three- and four-year-old plantings of the recently introduced canker-resistant varieties Angola, Wolcott, Murphy, and Ivanhoe are very vigorous and productive. Production in North Carolina should increase steadily as new plantings come into bearing.

Customer Picking

Growers who have tried the "pick your own" method of harvesting blueberries have been pleased with the results. People who have access to a planting where they can pick their own fruit seem to enjoy it thoroughly and, where such a method is properly handled by the grower, families return year after year. The system appears especially useful for 10- to 20-acre plantations somewhat apart from the principal production centers. —*D. H. Scott, USDA*



Power TO FIT THE MACHINE



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Based on figures contained in a recent U. S. Census Bureau report, an aggregate average of 50.61% of all general-purpose internal combustion engines made in 1950-'51, within an 11 to 175 cu. in. displ. range, (3 to 40 hp.) were WISCONSIN HEAVY-DUTY AIR-COOLED ENGINES (exclusive of aircraft, automotive, outboard marine and so-called "captive" engines built by various manufacturers for use on their own equipment).

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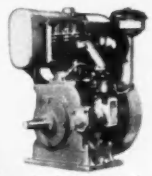
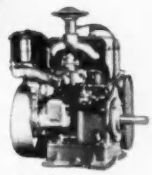
More different kinds of farm and orchard equipment are powered by Wisconsin Air-Cooled Engines than any other make. These engines have been pre-judged and pre-selected by more power-wise purchasers than ALL other makes of engines combined within their horsepower range.

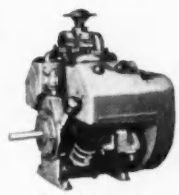
It will pay you to specify "Wisconsin Power" for your equipment. Write for your copy of "Power Magic" and ask your dealer about Wisconsin Air-Cooled Engines.



Typical standard single-cylinder engine, 3 to 9 hp.



Typical standard 2-cylinder engine, 7 to 14½ hp.



Typical standard V-type 4-cylinder engine, 15 to 36 hp.

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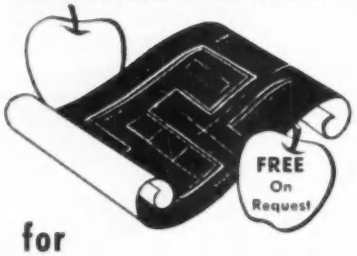

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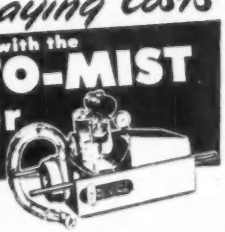

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MUTO-MIST, a pioneer in this field, has been perfected year by year. It leads the progress parade.

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Weighing only about 125 lbs., the MUTO-MIST is easy to handle. It operates safely on steep hillsides and where heavy rigs would mire.

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Mist Spray—
the Modern Way—

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APPLE PROSPECTS

(Continued from page 27)

Evidence is accumulating that in many cases failure to control apple scab satisfactorily has resulted because the first application was made a little too late. This is particularly true where the milder fungicides which do not have eradicative action are being used. Scab infection may occur at any time after growth starts if scab spores are present. It is impossible to determine with assurance when the first scab spores are discharged in an orchard. Therefore the only safe procedure for scab control is to have a protective fungicide on the trees as soon as new leaf or bud tissue is exposed.

The only alternative to this is to use an eradicant-type fungicide, such as liquid lime sulfur, which is known to dwarf the foliage and reduce the set on sensitive varieties. If mild fungicides, such as wettable sulfurs and most of the organic materials, are being used in the scab program from the start, it is particularly important that the first application be made as soon as appreciable new tissues are exposed.

Some of the disease and insect control programs for this year will carry alternate recommendations. One will be for the grower who wishes to produce fruit of optimum finish and is willing to spend more money for materials that will cause minimum injury to fruit and foliage. The other will be for cheaper materials that are efficient in pest control but may result in rougher, less desirable fruit. The grower will have to select between such recommendations.

A special situation will develop in the Middle Atlantic states in 1953, the year for the 17-year locusts to emerge. Young orchards especially can be seriously injured by the egg laying of these locusts. Injury can be reduced by spraying thoroughly during the egg deposition period. Covering newly planted trees with used tobacco cloth or other transparent material is another remedy.

Fruit Thinning—One of the major developments of the last decade has been in the use of sprays for thinning the fruit. In the western states dinitro compounds applied at the approximately full bloom stage are widely used. In the eastern states where hazards of spring frost and poor weather for fertilization during the bloom period are more likely to occur, naphthaleneacetic acid is largely used. This material can be applied from 10 to 20 days after full bloom when fruit set can be evaluated and the hazards of frost are

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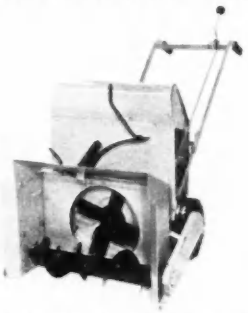

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largely past. Generally good results have been obtained between 15 and 20 days after the first petals begin to shed. The effect on the tree is generally less severe if the material is applied at that time rather than earlier.

With both the DN type material and naphthaleneacetic acid the results that will be obtained cannot be predicted with complete accuracy. The degree of thinning will vary with the variety, with the weather conditions, with tree vigor, and other factors. Notwithstanding these limitations the general commercial experience with these materials has been quite satisfactory. Growers contemplating using them should obtain the best available recommendations through their state extension service well in advance of the program season. In orchards where the bloom is heavy and the set appears excessive, the use of these sprays to reduce set in 1953 will, it is believed, be sound practice.

Many things can happen between December, 1952, when this article is written, and the fall of 1953 to change the present outlook. As of today we can expect a normal or heavier than normal apple crop in 1953. The steps outlined above are those that the writer feels are most essential in producing a crop of good quality fruit. THE END

HANDY ANDY

"One of the keys to success in orcharding is thorough pruning," says Phil Johnson of Mooresville, Ind. Shown above is Johnson's two-level pruning platform which is mounted directly over the tractor for easy maneuvering. A 20 cubic foot compressor works off the power take-off which operates four pneumatic pruners. He finds numerous advantages to his power pruners and platform, including: 1) Fewer workers are needed; 2) Pruning time is cut down; 3) Better supervision of crew is possible; 4) It is possible to prune trees from the outside in rather than from the inside out.

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ECONOMIC OUTLOOK

(Continued from page 33)

sumers will have approximately $235 billion to spend this year, if this rate is maintained. Even if the personal income rate falls from one to five per cent, it still is evident that the amount of money to be spent by Americans in the coming year will be at a rate as high as or higher than the record-breaking amounts that have been spent in the past several years.

Expenditures May Be Cut

No one knows, of course, what the new Congress may do in the way of cutting down federal expenditures, but it seems likely at this time that the budget for the next fiscal year—beginning July 1—will be as high as $70 billion. This amount, plus money yet to be spent that has been allocated but not committed by the military, will undergird the economy and will guarantee a continuation of the accelerated economic activity.

There is, of course, just as much of a chance that this federal expenditure rate will be revised drastically upward as there is that it will be held at $70 billion.

Meantime, even on the basis of what's expected, a high rate of economic activity is assured. Businessmen, for instance, have plans for some $25 or $26 billion in capital expenditures this year.

Congress this year is likely to enact a new tax bill that will cut some excises, will allow the Excess Profits Tax to lapse, and will cut individual taxes some 10 per cent under the rates of 1951 and 1952. It also is evident that Congress, and the new Republican administration as a whole, is liable to usher in an "era of good feeling" among business, agriculture, and government that will cause an even more favorable economic climate than might have been expected.

It already is evident that the new administration is going to take some steps that will be pleasing to most fruit growers, as well as most businessmen. That is the cessation of direct economic controls. It now is evident that price controls of all kinds are going to be allowed to die on the vine between now and April 30, when the price controls law goes out of existence.

While virtually all fruits and vegetables have been exempted from the workings of price controls since the enactment of the Harrison Amendment to the Defense Production Act of 1952, the Office of Price Stabilization still has been "policing" prices in many fields, some of

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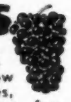

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ECONOMIC OUTLOOK

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them impinging upon fruit and allied fields.

With all price controls going by the board, it seems evident that business will be given its head, and that the law of supply and demand will be allowed to work in the economy. With the increased purchasing power that is available, and with greatly increased advertising and other promotions at work, demand for domestically-grown fruits should be very good in 1953, perhaps the best of any year in recent history.

Just what will happen to exports and imports under a Republican administration is a question which no one seems qualified to answer. Indications are that a tendency toward protectionism may become apparent in the new Congress, which would mean that many commodities now marketed in this country but grown elsewhere may not be able to compete with American products. On the other hand, if imports are cut to any measurable degree, the other nations likely will suffer a loss in "dollar balances," and will have to restrict their purchases of American fruit and other commodities.

Keener Competition

Not everyone will have a rosy time, economically, in the United States this year by any means. Because of the fact that costs will continue to creep higher, competition will increase both on the producer level and in marketing. As has been evident for some years, the whole marketing pattern of the nation is changing, with the economic race going to the smartest, largest, and swiftest. The little man, unless he can specialize or attain and maintain an economic self-sufficiency by diversification, is going to get it in the neck.

Larger Farm Units

This year, it seems evident to most economists, there will be more mergers of small business; and farm units, by and large, will grow larger at an accelerated pace.

The supermarkets and the self-service stores will gain in relative

(*Continued on page 62*)

Coming Next Month

- 1952 Experiences with Insecticides
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- New Methods of Insect Control
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	10 Trees Each	50 Trees Each	100 Trees Each
11/16" Caliper	$1.15	.95	.75
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TRANSPLANTS and SEEDLINGS
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Cherries, pears, plums, nut trees, strawberries, blueberries, etc. Grapes 10c. Shrubs, evergreens, shade trees, roses 25c up. Quality stock can't be sold lower. Write for **FREE** color catalog and $2.00 **FREE** bonus information.
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From where I sit, we can all be proud of the Bradford Trust folks for co-operating that way with a rival bank. It's a good example of how people, in our town, even though they may have conflicting interests, will go out of their way to help their neighbor. Democrats and Republicans, townspeople and farmers, buttermilk fanciers and those who prefer a temperate glass of beer—you'll find they respect each other's opinions and can "bank" on each other when the need arises.

Joe Marsh

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ECONOMIC OUTLOOK

(*Continued from page* 61)

volume in their ceaseless competition with the little merchant. All waste of manpower, machinery, and time will be cut by efficient management on farms and throughout the distributive mechanism by means of which food flows from the farm to the consumer.

The year 1953 will be one of great material progress throughout the fruit industry and throughout American business and industry generally. It will not be a year in which fruit growers can rest on their laurels, or fail to learn and to adopt the latest and best methods of growing, pruning, fertilizing, spraying, harvesting, or marketing their crops.

A Year of Challenge

The beginning of this New Year is a good time for sober stocktaking, for comparison of your operations today with your operations of a year or five years ago. It is a time, also, to stop for a breather, in preparation of a year of hard work, for no one can contemplate the huge fiscal, economic, or international problems of our nation without realizing that 1953 will be a year in which the nation will be challenged as it has never been challenged before. The challenge will be to each grower, each distributor, to do a better job with the best equipment available at the lowest price possible commensurate with profits. THE END

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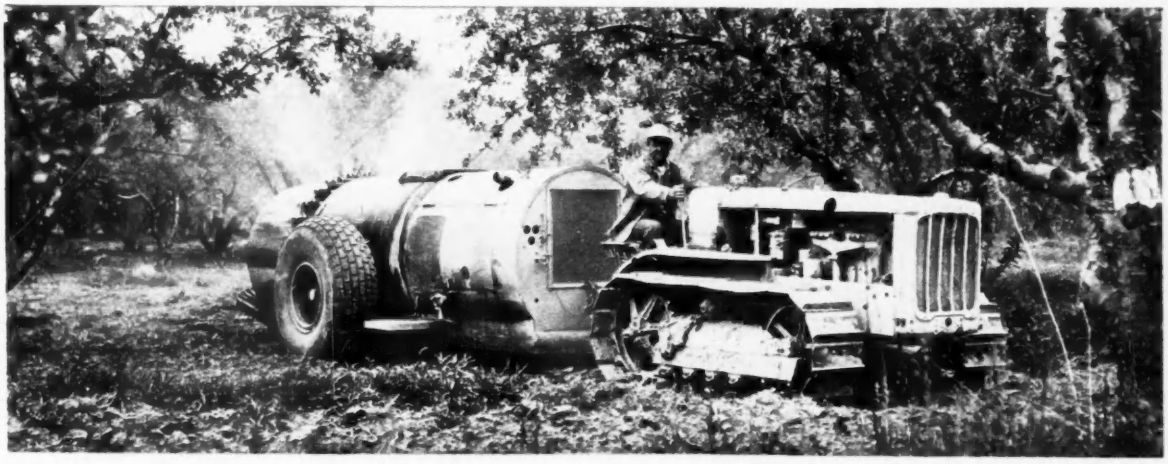

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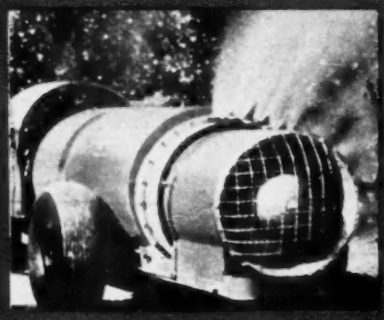
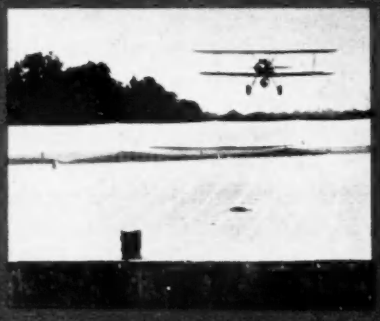


on olives . . .

on cabbage . . .



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